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ABSTRACT

In 1991, a longitudinal study was conducted of 1,786 students who had transferred from the Los Rios Community College (LRCC) District to the University of California at Davis (UCD) and to California State University at Sacramento (CSUS) during the 1983-84 academic year. The study examined the preparation, persistence, and performance of these students both before and after transfer. A major focus of the study was to determine whether the completion of remedial courses at the community college was related to student success at the community college level and after transfer. Major findings of the study included the following: (1) of the 165 students who transferred to UCD, only 33% had taken remedial work at LRCC, compared to 48% of the 1,621 students who transferred to CSUS; (2) the majority of students who had taken remedial work at LRCC took fewer than 9 units (1 or 2 courses); (3) transfers to UCD included larger numbers of men, Asians, and students under the age of 25 than did the CSUS transfers; (4) the average community college grade point averages (GPAs) for the UCD transfers was 3.18, compared to 2.95 for the CSUS transfers; (5) 29% of the UCD transfer group had earned an associate's degree from LRCC, as compared with 44% of the CSUS transfers; (6) transfers to UCD earned a higher GPA (2.79) at the senior institution than did transfers to CSUS (2.52); (7) at the time of the study, 81% of the UCD transfers had graduated, compared to 52% of the CSUS transfers; and (8) transfer students at both senior institutions graduated at a higher rate than native students. Extensive data tables are included. (JMC)

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MOVING ON: A COOPERATIVE STUDY OF STUDENT TRANSFER

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TABLE OF CONTENTS

Page

INTRODUCTION 1
The Importance of the Transfer Function 1
Genesis of the Study 2
Key Issues in Student Transfer: Preparation, Persistence, Performance 3
Cooperative Transfer Programs: Los Rios, UC Davis, CSU Sacramento 3

STUDY METHODOLOGY 5
The Los Rios Student Performance Data Base 5
Defining the Study Population 6

THE TRANSFERS: DEMOGRAPHICS OF THE STUDY POPULATION 7
Differences by University 7
The UC Davis Transfers 7
The CSU Sacramento Transfers 7
Comparison of Demographics: UC Davis and CSU Sacramento Transfers 7

THE LOS RIOS EXPERIENCE 8
Preparation 8
Preparation of UC Davis Transfers 8
Preparation of CSU Sacramento Transfers 9
Comparison of Preparation: UC Davis and CSU Sacramento Transfers 9
Persistence 9
Persistence of UC Davis Transfers 10
Persistence of CSU Sacramento Transfers 12
Comparison of Persistence: UC Davis and CSU Sacramento Transfers 14
Performance 14
Performance of UC Davis Transfers 15
Performance by GPA 15
Performance by Degree 15
Performance of CSU Sacramento Transfers 16
Performance by GPA 16
Performance by Degree 16
Comparisons of Performance: UC Davis and CSU Sacramento Transfers 17

THE UNIVERSITY EXPERIENCE: UC DAVIS 18
Preparation of UC Davis Transfers 18
Persistence of UC Davis Transfers at the University 18
Performance of UC Davis Transfers at the University 19
Performance by GPA 19
Performance by Degree 20

Page

THE UNIVERSITY EXPERIENCE: CSU SACRAMENTO 21
Preparation of CSU Sacramento Transfers 21
Persistence of CSU Sacramento Transfers at the University 21
Performance of CSU Sacramento Transfers at the University 22
Performance by GPA 22
Performance by Degree 23

RESULTS: PROFILES OF SUCCESSFUL TRANSFER STUDENTS 24
Comparison of Profiles to Los Rios Student Population 26
Comparison of Los Rios Transfers to University Native and Other Transfer Students 27

CONCLUDING OBSERVATIONS 28
Data Issues 28
Suggestions for Further Research 29

REFERENCES 30

APPENDIX A: UC Davis Cohort Tables 32

APPENDIX B: CSU Sacramento Cohort Tables 33

MOVING ON: A COOPERATIVE STUDY OF STUDENT TRANSFER

Los Rios Community College District
University of California, Davis
California State University, Sacramento

EXECUTIVE SUMMARY

April, 1991

The Los Rios Community College District in Sacramento, California, in cooperation with the University of California, Davis, and California State University, Sacramento, conducted a longitudinal study of 1,786 students who transferred from a Los Rios college to one of the senior institutions (165 to UC Davis and 1,621 to CSU Sacramento) during the 1983-84 academic year.

The study examined the preparation, persistence and performance of these students both before and after transfer. A major focus of the study was to determine whether the completion of remedial courses at the community college was related to student success at the community college level and after transfer (defined as attainment of the baccalaureate degree at the university).

The development of a Student Performance Data Base in the Los Rios Office of Planning and Research enabled the researchers to examine community college transcript records in greater detail than had been possible before, and facilitated comparative analyses of the data for the non-remedial and some-remedial cohorts. The study sought to answer key questions regarding the preparation, persistence, and performance of students at the three Los Rios colleges as well as at the two universities.

Specifically, with respect to their **Los Rios experience**, we asked:

Were the students well prepared when they entered Los Rios?

- Students who transferred to UC Davis were considerably better prepared when they came to Los Rios than were those who transferred to CSU Sacramento. Only a third (33%) of UC Davis transfers took remedial work in Los Rios, compared to almost half (48%) of the CSU Sacramento transfers. In each case, however, the great majority of those who took remedial work took fewer than nine units of it--generally one or two courses. Black students were far more likely to have taken remediation than were members of other ethnic groups.

Did the two groups of transfers differ in terms of their demographics (gender, ethnicity, age)?

- A comparison of the two study populations revealed that the transfers to UC Davis included a higher proportion of men, Asians, and students under the age of 25 than did the CSU Sacramento transfer group. The average age of the UC Davis transfers was 22, compared to 24 for CSU Sacramento transfers.

- The age difference was more profound when comparing the "traditional college age" group: more than half of the UC Davis transfers were 20 or younger, while only a third of the CSU Sacramento transfers were that young. The age difference of approximately two years was generally consistent among the various ethnic groups as well as with respect to gender.

How long did it take for the transfers to complete their work at Los Rios before transferring?

- Students who transferred to UC Davis completed an average of six semesters (approximately three academic years) in Los Rios before transferring, compared to an average of seven semesters (3½ academic years) for the CSU Sacramento transfers. Those who took remedial work spent approximately an academic year longer in Los Rios before transferring to either university than did those who did not take remediation.

How many transferable units did students take before moving on to the university?

- Almost two-thirds (62%) of the UC Davis transfers had completed 56 or more transferable units, compared to half (49%) of the CSU Sacramento transfers.

How did the transfers perform in Los Rios in terms of their transfer grade point average (GPA)?

- The average GPA for the UC Davis transfers was 3.18, compared to 2.95 for the CSU Sacramento transfers. Beyond that, the UC Davis and CSU Sacramento groups showed remarkably similar profiles: GPAs were generally higher for women than for men, for Asians and whites than for other ethnic groups, for older compared to younger transfers, and for non-remedial as compared to remedial cohort students.

How did the transfers perform in Los Rios with respect to attainment of the AA/AS degree?

- There was substantial difference between the UC Davis and CSU Sacramento transfers in terms of degree attainment at Los Rios: only 29% of the UC Davis group received the degree, while 44% of the CSU Sacramento group chose to do so (the degree is not required for transfer to either university).

- Patterns were similar for the two transfer populations with respect to demographic characteristics: women, Blacks, American Indians, Hispanics and older students were more likely to acquire the associate degree than were men, whites, Asians and younger students.

Regarding their **university experience**, we asked:

How well did the transfers persist at the two universities in terms of university units completed?

- By the time of this study, 63% of the UC Davis transfers and 36% of the CSU Sacramento transfers had completed units equivalent to two or more years of university work. Viewed from another perspective, the average number of quarter units completed by the UC Davis transfers was 96 (equivalent to 64 semester units), while the average semester units completed by the CSU Sacramento transfers was 45. This reflects the more part-time enrollment pattern of many CSU Sacramento students.

- The differences between the remedial cohorts was very small at both universities, suggesting that once students have transferred, previous need for remediation has little effect on the number of units completed at the university.

How long did the transfers spend at each university with respect to academic terms enrolled and actual years elapsed?

- Comparing the time spent at the senior institutions, the data showed that there was only a slight difference in the equivalent academic years attended (based on total terms enrolled) by the UC Davis group (2.6 years) compared to the CSU Sacramento group (2.8 years); however, it took a longer period of elapsed time for the CSU Sacramento transfers to get in that many terms of attendance. This suggests that the CSU Sacramento transfers "stopped out" more often or attended on a part-time basis, possibly while working. While remedial cohort students at both institutions had to persevere slightly longer than did their non-remedial counterparts, differences between cohorts within each university were relatively small.

How did the two groups of transfers perform at the universities in terms of their university GPAs?

- Transfers to UC Davis earned a higher average GPA after transfer (2.79) than did transfers to CSU Sacramento (2.52). At both universities, women had higher GPAs than did men, and whites, Asians and American Indians had higher GPAs than did Hispanics and Blacks. In general, older students (especially women) earned higher average GPAs than younger students, although younger men sometimes proved an exception to this rule.

How did the two transfer groups perform at the universities in terms of attainment of the baccalaureate degree?

- With respect to degree attainment at the time of this study, the UC Davis transfers had done substantially better than the CSU Sacramento group: 81% of the UC Davis transfers but only 52% of the CSU Sacramento students had graduated. This can be explained in part by the more part-time attendance pattern of the CSU Sacramento students. At UC Davis, the graduates included more men, whites and Asians than women and other ethnic minorities, while age groups showed no particular pattern. In addition, 84% of the non-remedial cohort and 74% of the remedial cohort had graduated by Spring 1990.

- At CSU Sacramento, graduates included slightly more women, Asians and whites than men and other ethnic groups; the youngest age group had the highest percentage of graduates (58%). More than half of each remediation status cohort had completed the baccalaureate degree by Spring 1990 (54% of the non-remedial and slightly more than 50% of the some-remedial group).

How did baccalaureate degree attainment of Los Rios transfers compare with that of university native students and with other community college transfers?

- Graduation data reported by UC Davis indicated that 72% of their Fall 1981 native students and 75% of all Fall 1983 community college transfers had graduated by the time of this study.

- Comparable data from CSU Sacramento showed that 40% of Fall 1981 native students and 53% of Fall 1983 community college transfers had graduated in the same time period.

- Clearly, the Los Rios transfers to UC Davis as measured by baccalaureate degree attainment were more successful than either the general community college transfer cohort or the UC Davis native students. The Los Rios transfers to CSU Sacramento graduated at essentially the same rate as all community college transfers to that university, but at a substantially higher rate than the CSU native students.

In conclusion, the study found that:

Performance at Los Rios was a good predictor of later success at the two universities.

- While the pre-transfer GPA was higher for the UC Davis transfers (3.18) than for those to CSU Sacramento (2.95), beyond that the two transfer groups were very similar:

- Los Rios GPAs were generally higher for women than for men, for Asians and whites compared to other ethnic groups, for older compared to younger students, and for non-remedial as compared to remedial cohort students. Performance at the universities followed essentially the same pattern.

There were many faces of success, as shown by an analysis of demographic characteristics:

- While a single profile of the successful transfer student can be said to include more men, whites, Asians and younger students at UC Davis, and more women, Asians, whites and somewhat older students at CSU Sacramento, it is clear that there are other profiles of successful students, profiles that include women and men of Black, Hispanic and American Indian background, older students in each ethnic group, and students who started their careers in remedial courses.

- The good news is that students from each of these nontraditional transfer groups did successfully transfer and did complete degrees at both of the universities. In particular, those who took remedial courses at Los Rios still went on to obtain baccalaureate degrees.

One of the most interesting demographic findings of the study relates to age groups of transfers:

- The 18-20 and 21-24 age groups accounted for 80% of the UC Davis transfers and 81% of the graduates. At CSU Sacramento, these same two age groups comprised 71% of transfers and 73% of degree earners. However, 5% of the UC Davis and 14% of the CSU graduates were 30 years of age or older, providing evidence that older students can and do transfer and graduate from the two universities.

- These findings with respect to age have special significance for community college planners in view of the fact that students over the age of 25 have comprised 50% or more of the Los Rios student body each year since 1983, and the proportions of older students have continued to increase over time. Since younger students, as this study has shown, are more likely to transfer, the trend of community college student populations toward more older students may mean fewer transfers--unless older students are encouraged to transfer.

Overall, what was the relationship between the need for remediation at the community college and eventual attainment of the baccalaureate degree?

- Although remedial cohort students had to persist longer and performed at a somewhat lower level than their non-remedial counterparts at both the community college and the universities, remediation status made less difference than might have been expected. Substantial numbers of the some-remedial group had in fact graduated by the time of this study: 74% from UC Davis (compared to 84% of the non-remedial cohort); 50% from CSU Sacramento (compared to 54% for the non-remedial students).

- For students, the message is a clear one: good performance at the community college level can mean successful transfer and a good possibility of attaining the baccalaureate degree, even for students who have to take remedial courses first to strengthen their abilities.

MOVING ON: A COOPERATIVE STUDY OF STUDENT TRANSFER

INTRODUCTION

The Importance of the Transfer Function

The 1960 Master Plan for California Higher Education designated transfer of students from community colleges as the primary cornerstone of the state's three-tiered public postsecondary education structure. With only the top one-eighth of California high school graduates eligible for the University of California and the top one-third eligible for the California State University, the majority of high school graduates must enter postsecondary education through the local community colleges. The California Community Colleges' transfer function was designed as the key to maintaining access in an otherwise very highly selective system, and a healthy transfer function was seen as essential to giving all students a chance--sometimes a crucial second chance--to enter public postsecondary education.

During the three decades since the 1960 Master Plan, California's community colleges broadened their mission to include the provision of adult basic education (including remedial and developmental education), courses and programs to meet the needs of business and industry, and a wide variety of community service offerings. The community colleges by the end of the 1980s were serving more different types of students than the Master Plan had ever envisioned--becoming "all things to all people" in the minds of their critics. In essence, the community colleges had become the victims of their own success, with many more students being served in a wider variety of programs, but with a smaller proportion transferring to the two state university systems.

Over the past decade, numerous reports on transfer have come from the California Postsecondary Education Commission, from the systemwide offices of the three public postsecondary education segments themselves, and from the legislature and its recent Joint Committee on the Review of the Master Plan. In each report, concern is expressed about whether the number of students transferring is high enough, whether ethnic minorities are successfully transferring, and why some community colleges are more successful than others in helping students transfer. In addition, legislation has been passed in California to assist the transfer function in various ways, from encouraging cooperative programs among the three public segments, to establishing transfer centers, to examining how a core curriculum might be developed that would simplify the transfer process for students.

In 1986, the state's review of its Master Plan for Higher Education underscored the importance of the transfer function and key legislation was introduced to formally recognize transfer as one of the two primary missions of the California Community Colleges, the other being occupational education. In fact, however, transfer is the only mission that is entirely unique to the community colleges. While many other public and private educational institutions and agencies provide occupational training, developmental education and community services, only the community colleges provide lower division instruction for

transfer students. It is perhaps the many benefits attributed to a college education--benefits that accrue to society as well as to the individual student--that make the health of the transfer function a high priority for the state and its higher education institutions. As stated by the Master Plan Commission:

> ...there is no question that a college degree still translates into increased options for individuals; options in the area of employment that may mean substantially increased earnings. A collegiate education also provides individuals with a broader understanding about themselves, society, and the world at large. A collegiate degree also confers social mobility, the ability to better oneself and one's family, and the ability to move from one socioeconomic level to another. Society also benefits from a more highly educated population through increased participation in local, statewide, and national concerns that often comes with collegiate education. It is often argued that one reason for California's strong economy is the wealth of college-educated people from which business and industry can select employees. The health of the transfer function...is central to the maintenance of a vigorous postsecondary education system in California. (Background Papers: The Challenge of Change; Commission for the Review of the Master Plan for Higher Education, March 1986, p. 40.)

Genesis of the Study

The idea for a cooperative study on student transfer originated in 1983 among the Los Rios Community College District, the University of California at Davis, and the California State University at Sacramento. A pilot effort was designed and implemented, culminating in 1985 in the publication of Moving On: A Pilot Study of Student Transfer (Renkiewicz et al., Los Rios CCD). This study examined such issues as official vs. actual counts of transfers, high school eligibility, demographic characteristics of Los Rios transfers to each university, academic performance before and after transfer, remedial course-taking patterns, and persistence to degree. In many ways, the three institutions' experiences in that pilot effort provided the impetus to undertake the current study.

This Cooperative Transfer Study was begun in early 1989, again as a joint effort of the Los Rios Community College District, the University of California at Davis, and the California State University at Sacramento. The major goal of the study was to identify the characteristics of students who transfer by analyzing the preparation, persistence and performance of students who had transferred from the three Los Rios colleges to UC Davis and CSU Sacramento during the 1983-84 academic year. That year was chosen to ensure that the majority of those transferring would have had time to graduate from the universities--including those who had to attend part-time.

We wanted to answer questions about transfer that depended on having educational histories of transfer students that existed in three different data bases--those of the community college district and the two universities to which the majority of Los Rios students transfer. Clearly, the scope of the study called for a cooperative effort that crossed institutional lines, with data and analytical tools shared among research staffs of the three institutions. Encouraged by our long history of cooperative efforts on behalf of student transfer, the three institutions embarked on the study with the support of their CEOs: Chancellor Marjorie Blaha of Los Rios; Chancellor Theodore Hullar of UC Davis; and President Donald Gerth of CSU Sacramento.

Key Issues in Student Transfer: Preparation, Persistence, Performance

The questions we wanted to answer were grouped around three areas: preparation, persistence, and performance. With regard to preparation, we wanted to know if the transfers had entered Los Rios well prepared, or whether they first had to take remedial courses. If so, we wanted to know whether such courses influenced their persistence or performance. In terms of persistence, we wanted to know how long students were enrolled at Los Rios and if the remedial students were enrolled longer. Finally, how did the transfer students perform in Los Rios in terms of GPA and degree attainment, and what were the demographic characteristics of the transfers to each university?

Similar questions were asked at the university level: were the Los Rios transfers well prepared for university-level work? How did the transfers perform at each university in terms of units completed and grade point averages? Did performance vary by demographic characteristics or by remediation status at Los Rios? Did transfers persist to degrees at the universities, how long did it take for them to complete their programs, and did remedial students take longer to finish? And how did the Los Rios transfers perform compared to native university students who started as freshmen directly from high school?

Finally, knowing that only a certain portion of the transfers would complete their degrees, could we begin to identify profiles of the successful transfer students? If so, we felt we could also identify elements of those profiles that would help us improve the transfer process for current and future students.

Cooperative Transfer Programs: Los Rios, UC Davis, CSU Sacramento

The Los Rios Community College District has long had an outstanding reputation for its commitment to student transfer; in fact, the district has consistently ranked among the top four in the state in annual numbers of transfers to the UC system, and is second only to the Los Angeles district in transfers to the CSU system.

Considerable effort has been expended in a variety of programs to encourage and facilitate the transfer process for Los Rios students in the past several years. Intersegmental programs such as the Transfer Opportunity Program (TOP), the Transfer Centers, and the Transfer Admission Agreement with UC Davis, CSU Sacramento and the private University of the Pacific, have been developed and implemented.

The Transfer Opportunity Program (TOP) was the first intersegmental program between Los Rios and UC Davis. Some of the direct benefits of TOP are individual advising on UC Davis admissions, financial aid and housing information, transcript evaluation, early notification of admission and guided campus tours. TOP became a model for cooperative transfer programs.

In 1985 the Governor's Budget included $3.3 million to fund a three-year pilot program of Transfer Centers on 20 campuses of the California Community Colleges, with the goal of improving the transfer function between the community colleges and the UC and CSU systems. Los Rios submitted the first multi-campus request to the State Chancellor's Office to implement three Transfer Centers to supplement the counseling efforts at the colleges.

Much of the credit for increasing the numbers of Los Rios transfers to the UC and CSU systems belongs to the Transfer Centers. With staff jointly funded by the universities and the district, the Transfer Centers assist students in applying for financial aid well in advance of admission. Using computerized programs,

the Transfer Centers can closely estimate the amount of financial aid a student would be awarded; this service helps the transfer students budget educational expenditures. The Transfer Centers regularly schedule university and college admission representatives to meet with individual transfer students to assist in the transfer process. In addition to the Transfer Centers, there are other cooperative programs; one example, Crossover Enrollment, allows Los Rios students to enroll concurrently in one class at UC Davis or CSU Sacramento and have the tuition fee waived. This enables students to get better acquainted with the senior institution and encourages transfer.

The Transfer Admission Agreement (TAA) is another service provided by the Los Rios Transfer Centers. This innovative service, developed by the Transfer Centers, UC Davis, CSU Sacramento and University of the Pacific, affords the transfer student a formal agreement with the university that guarantees admission based on specific academic guidelines. Transfer students are counseled on what courses must be completed and GPA obtained in order to transfer; these conditions are written into a contract and the student is guaranteed admission to the senior institution upon completion of the stated requirements.

Los Rios' Transfer Centers and the Transfer Admission Agreements have been so successful that they have been copied statewide and have even spawned statewide legislation. SB 507, a bill introduced in 1989 by Senator Gary Hart, mandated that each community college district ensure that its colleges develop formal transfer agreements guaranteeing upper-division enrollment in specific majors for community college transfer students, regardless of their initial eligibility. While passed, the bill was not signed by then-Governor Deukmejian. A new version of the bill (SB 121) has been introduced in 1991 and is moving through the Legislature.

Continuing analysis and evaluation of these cooperative transfer efforts helped encourage all three institutions to undertake the challenge of a longitudinal study of transfer students and their academic experiences. Because the majority of Los Rios transfers to each of the two university systems go to the local campuses, we knew that studying the transfer populations at UC Davis and CSU Sacramento would provide information important for program review and improvement. In addition, if we could identify the characteristics of successful transfer students, that information could be shared with students, faculty and counselors so that more students could be encouraged about their own prospects for transfer--and ultimately for success in achieving the baccalaureate degree.

STUDY METHODOLOGY

The Los Rios Student Performance Data Base

A major factor in the successful completion of this study was the Los Rios Student Performance Data Base. Developed by the district's Office of Planning and Research, the Student Performance Data Base uses computerized files and procedures to link student application and demographic data (i.e., age, ethnicity, sex) with performance data (transcripts) into a quasi-relational data base format that helps meet the increasing demands for information about how our students perform at Los Rios.

California community colleges face increasing demands from the general public, board members, state agencies and the Legislature for accountability and student performance data. Prior to development of the Student Performance Data Base (SPDB), Los Rios research staff had considerable difficulty answering questions about student performance, the kinds of classes taken, or the demographic mix of students in particular kinds of classes (i.e., in remedial vs. transfer courses). Before the SPDB, demographic and performance information for students resided in separate files which were not designed to link together efficiently.

In November 1989, the district's research staff initiated development of a data base system flexible enough to quickly answer "traditional" as well as "impossible" student performance questions. District information needs suggested development of a relational data base separate from the operational Data Processing data base. Because of its powerful file-handling capabilities and excellent statistical capabilities, SPSS-X was chosen as the software tool to link application and course data files, and to perform the necessary statistical analyses.

A key feature of the SPDB is the ability to identify by type (i.e., remedial, transfer, vocational) any course a student has ever taken in Los Rios. Given the changes in courses and programs over the 20-year period for which we had computer files, the classification task was accomplished by a member of the department with over 14 years experience in counseling in the district--and thus an intimate knowledge of the course offerings over that period. After her meticulous course-by-course analysis and subsequent programming, the SPDB can now classify every course Los Rios students have taken over the past 20 years (with the performance information for the course)--essentially performing computerized transcript analysis.

Following design of the classification algorithm and linking that to the performance data, staff developed a process for linking demographic data with the performance information. This process included use of a fourth-generation computer language to extract performance information from Data Processing files, with subsequent conversion of the data to a format usable in SPSS-X. Once data were in SPSS-X format, record linking on a common identifier (student Identity Number or Social Security Account Number) was relatively easy and reasonably quick. The SPDB was then operational, ready to provide information about student performance.

Determining whether transfer students had taken remedial courses and if so, how they performed subsequently was a key issue for this study, and the ability to do computerized transcript analysis through the Student Performance Data Base was absolutely essential. Unfortunately, such a capability does not currently exist at the two universities, prohibiting similar detailed analysis of university transcripts for the study population.

Defining the Study Population

To begin the study, the two universities provided data tapes of students who had entered their institutions for the first time during the 1983-84 academic year (Fall/Winter/Spring quarters for UC Davis; Fall/Spring semesters for CSU Sacramento). The Los Rios Office of Planning and Research (OP&R) staff matched these tapes against our own data base of all students ever enrolled in one of our three colleges, up to and including Fall 1989. This resulted in 562 matches for UC Davis, and 2983 matches for CSU Sacramento.

OP&R staff further analyzed the matched records using SPSS-X to identify and delete any students who had never attended a Los Rios college prior to Fall 1983. Some of the matched students had entered a Los Rios college after having first attended UC Davis or CSU Sacramento--either as reverse transfer or concurrently enrolled students. We deleted these students; the resulting group for UC Davis was 258, and for CSU Sacramento, 1957. Additional analysis revealed that three of the UC Davis students and 33 of the CSU Sacramento students had not enrolled in any transfer-level courses prior to Fall '83. These students were also deleted from the study population.

Students were then sorted by whether or not they were credited to Los Rios by the senior institutions, each of which uses a different set of rules to determine who is credited for the transfer student (e.g. Los Rios, another community college, a high school, even another UC or CSU campus). While UC Davis generally credits the institution that contributed the most to the student's eligibility, CSU Sacramento tends to credit the institution last attended, regardless of units earned. The resulting analysis identified 166 UC Davis and 1719 CSU Sacramento transfer students credited to Los Rios.

Student Performance Data Base transcript analysis showed that a few students (one at UC Davis and 14 at CSU Sacramento) had enrolled in a transfer-level course at Los Rios prior to Fall 1983 but had withdrawn before the drop deadline, leaving them on our Los Rios data base but with zero transfer units completed. These students were also deleted, leaving 165 UC Davis and 1705 CSU Sacramento students who had completed at least one transfer-level course and were credited to Los Rios.

Analysis also revealed that among those students not credited to Los Rios, eight UC Davis students and 41 CSU Sacramento students had earned at least 56 transferable units at a Los Rios college prior to Fall 1983. Because 56 transferable units are required to transfer if a student is not eligible from high school, and since all these students had earned 56 or more transferable units in Los Rios, we included them in the study population as students who should have been credited to Los Rios. This resulted in a study population of 173 UC Davis and 1746 CSU Sacramento students.

Many studies of community college transfer done by local districts include all students who have ever attended the particular community college, regardless of whether those students enrolled only for one course, already held a college degree, etc. By defining our population so rigorously for this study--including only those students credited to Los Rios by the senior institutions, plus those not credited who had earned 56 or more transferable units in Los Rios--we ensured that Los Rios had in fact made a substantial contribution to each of these students' pre-transfer academic experience.

We assumed the 173 UC Davis and 1746 CSU Sacramento students were our final study population. However, further transcript analysis revealed that course-by-course information for eight UC Davis and 125 CSU Sacramento students was missing, because two Los Rios colleges had purged the transcript information for inactive students. With course information for these students relegated to microfiche, we could not use the SPDB to do the transcript analysis, and thus had to exclude these students from the study population. The final study population thus included 165 UC Davis students and 1621 CSU Sacramento students.

THE TRANSFERS: DEMOGRAPHICS OF THE STUDY POPULATION

Differences by University

As mentioned in the Introduction, the student populations at University of California campuses differ from those at California State University campuses in part because the Master Plan for Higher Education in California charges each system to admit different groups of students from high school. UC admits the top eighth of high school graduates, CSU the top third; these differences logically extend to system- and campus-developed admissions criteria for transfer students. For the 1983-84 academic year, students transferring solely on the basis of their community college work (56 or more transferable units) needed a 2.4 or better GPA to enter UC Davis, while students entering CSU Sacramento needed a 2.0 or better GPA. Because of differences both in admissions criteria and academic majors offered, each system attracts different types of students. Thus, the study population was split into two groups: those who transferred to UC Davis and those who attended CSU Sacramento. Each transfer group is addressed separately throughout the study, although some comparisons are made. Reference tables appear in the Appendices.

The UC Davis Transfers

More of the 165 Los Rios transfers to UC Davis were men (56%) than women (44%). Ethnic minorities comprised 36% of these transfers; 13% were from groups identified by UC Davis for Student Affirmative Action at admissions: American Indian, Black and Hispanic.

The UC Davis transfers were young at the time they transferred: 80% were under age 25, 58% were under 21. Those in the 25-29 age bracket comprised 14% of the transfers, 5% were in their 30s and only 2% were 40 or older. The average age at transfer was 22 but differences exist by gender and ethnicity. Women were older than men (23 vs. 21), Blacks (24) were older than whites (23), and transfers from other ethnic groups were, on average, 21 years old.

The CSU Sacramento Transfers

The final number of CSU Sacramento transfers included in the study was 1621, of whom 802 (49.5%) were male and 819 (50.5%) were female. Twenty-nine percent were ethnic minorities, including 16% underrepresented minorities. There were more women in every ethnic group except Asians.

The CSU Sacramento transfers were somewhat older at the time they transferred: 71% were under 25, 37% were under 21. Those in the 25-29 age bracket comprised 15% of the transfers, while 15% were over 30. The average age of all CSU Sacramento transfers was 24, with women averaging almost two years older than men (25 vs. 23). Differences also existed by ethnic group, with American Indians the oldest (27) and Asians the youngest (22). Blacks (26) were older than whites (24), who were older than Hispanics (23).

Comparison of Demographics: UC Davis and CSU Sacramento Transfers

Transfers to UC Davis included a higher proportion of men (56% vs. 50%), Asians (23% vs. 14%) and students under age 25 (79% vs. 70%) than did transfers to CSU Sacramento. On average, UC Davis transfers were younger (22) than CSU Sacramento transfers (24). The age difference was even more profound for traditional college age transfers; more than half (58%) the UC Davis transfers were under 21, compared with just over a third (37%) of the CSU Sacramento transfers. The two-year age gap appears generally across gender and ethnicity groups.

THE LOS RIOS EXPERIENCE

Preparation

For the purposes of this study, the two most important questions about preparation of Los Rios transfers were: What proportion of students who eventually transferred took remedial courses at Los Rios colleges? Did those who took remedial courses persist to graduation or perform differently at the transfer campus than those who did not take such courses? Of equal importance was discovering if the answers to these two questions differed by gender, ethnicity or four-year campus.

Using the Los Rios Student Performance Data Base, we assigned all students included in the study to one of four groups: those students who took remedial mathematics, remedial English, both remedial mathematics and English, or no remedial courses. Further analysis convinced us to combine the four remedial cohorts into two: the non-remedial (took no remedial courses) or the some-remedial (took at least one remedial course). We then used these two cohorts throughout the study to examine persistence and performance both at Los Rios and after transfer. We expected to find some differences within and across cohort groups, demographic groups, and the two senior institutions.

Preparation of UC Davis Transfers

Most students who transferred to UC Davis apparently entered Los Rios quite well prepared--over two-thirds took no remedial courses at Los Rios. Of the one-third who did were 15% with remedial English courses, 12% with remedial mathematics courses and 6% with both.

Gender was not strongly related to remediation status; 32% of the men and 34% of the women took such courses. However, the figures varied substantially by ethnicity. Many more Black transfers to UC Davis (56%) completed some remedial work and many fewer Asians (24%) did so. Whites (35%) and Hispanics (30%) completed remedial work at near the average (33%) for the UC Davis transfer group. If reports of underpreparation of Black students in the K-12 system are accurate, it appears that Los Rios is providing an opportunity for these students to take the remedial courses they need to ensure better academic success at the university.

Those who took remedial courses tended to be older (23) at transfer than those who did not (22); they also stayed at Los Rios longer before transferring. Almost a third (31%) of those who completed some remedial work started at Los Rios before Fall 1980; only 16% of those not taking remedial courses entered before that time.

Taking remedial coursework has potential costs for both students and the institution. Students' money earning capacity may be reduced while they are in college, a consequence that can pose difficulties for those who are low on the socioeconomic scale and may lack the resources to defer better-paying employment. In addition, having--or choosing--to take remedial courses also cost time, since the some remedial students were older at entrance to UC Davis and had entered Los Rios earlier than the non-remedial students. However, having the opportunity to take remedial courses and thus overcome academic underpreparation also enables many students to transfer to a university who would not otherwise have done so.

Preparation of CSU Sacramento Transfers

About half (48%) of the students who transferred to CSU Sacramento had taken remedial courses at Los Rios--21% with remedial English, 15% with remedial mathematics, and 13% with both. Gender appeared to make no difference in remediation status since 48% of both men and women did some remedial work.

There were noticeable differences by ethnicity: substantially more Hispanics (62%), Blacks (59%) and American Indians (57%), and fewer Asians (36%) took remediation at Los Rios, compared to the average (48%) for the total CSU Sacramento transfer group. Such relatively high remediation figures may indicate the poorer-quality K-12 preparation received by many Blacks, Hispanics and American Indians, who then avail themselves of the opportunities for remediation at the community college level prior to transfer. Since all these students did subsequently transfer to CSU Sacramento, it appears that the need for some remedial courses does not prevent students from transferring to the State University.

Those students who took remedial courses before transferring to CSU Sacramento were slightly older (24.4) at transfer than those who did not (23.7), and they stayed longer at Los Rios before transferring. Almost half (45%) of those who took some remedial coursework started at Los Rios before Fall 1980; only 27% of the non-remedial students entered before that time.

In summary, the CSU Sacramento transfers entered Los Rios relatively well prepared for college work; 52% took no remedial work before transfer, while 48% took some remedial work. Underrepresented minority groups (American Indian, Hispanic, Black,) and older students were more likely to have taken remedial courses, and those who did took longer to complete their work in Los Rios before moving on.

Comparison of Preparation: UC Davis and CSU Sacramento Transfers

The students who transferred to UC Davis appeared to be considerably better prepared for college work when they entered Los Rios than those who transferred to CSU Sacramento. While only a third of the UC Davis transfers took remedial courses at Los Rios, almost half the CSU Sacramento transfers did. The time involved in taking remedial courses is apparent for these two groups. Over three-quarters of the UC Davis transfers were at Los Rios three or fewer years, while fewer than two-thirds of the CSU Sacramento students transferred in a similar amount of time.

Persistence

Persistence was measured in this study by number of units completed, and by number of terms or academic years completed. We examined all units completed vs. transfer units completed, since completion of 56 or more transferable units is required for transfer to either university, unless the student was eligible to enter the university upon graduation from high school. We also examined number of terms completed (quarters at UC Davis, semesters at CSU Sacramento), and academic years completed. We then analyzed persistence measures by preparation status (the no remedial and some remedial cohorts) to see if preparation influenced persistence.

Persistence of UC Davis Transfers

Two-thirds (67%) of the Los Rios transfers to UC Davis had completed 56 or more total units (including remedial and vocational units) at Los Rios before transfer. In fact, almost 32% had completed 71 or more units before transferring. This finding suggests students take substantially more units than needed either for the AA/AS degree (60 total units) or for transfer (56 transferable units).

We further analyzed the units completed according to whether they were remedial or transferable. The 33% of UC Davis transfers who had taken remedial courses were divided as follows:

Remedial Units	Students	Percent
Zero Units*	7	4.2%
0.1 - 2.9	2	1.2%
3.0 - 5.9	29	17.6%
6.0 - 8.9	9	5.5%
9.0 - 11.9	6	3.6%
12.0 - 14.9	1	0.6%
TOTALS	54	32.7%

*(7 students took remedial units but did not complete them.)

Most of the 47 UC Davis transfers who completed remedial units completed fewer than nine units--generally one or two classes (average of three units per class). Thus the additional non-transferable units taken by the Los Rios students before transfer were generally vocational and/or elective units.

Most UC Davis transfers (62%) completed 56 or more transferable units at Los Rios. Those completing fewer units may have been eligible (or nearly eligible) for UC admission directly from high school or may have acquired additional transfer units at another educational institution. The transfer unit breakout was as follows:

Transfer Units	Students	Percent
0.1 - 29.9	29	17.6%
30 - 55.9	33	20.0%
56 - 60.9	33	20.0%
61 - 70.9	33	20.0%
71 or more	37	22.4%
TOTALS	165	100.0%

To determine whether remediation status was related to the number of total units, remedial units, or transferable units completed, we analyzed these measures by cohort (non-remedial, some remedial).

Compared with the 67% of the total UC Davis transfers, 76% of the same remedial cohort and 62% of the non-remedial cohort had completed 56 or more total units before transferring. In fact, 44% of the remedial cohort completed 71 or more total units at Los Rios, compared with only 25% of the non-remedial cohort. While completion of additional units beyond the transferable units may be expected at the community college before transfer, those students who took remedial courses at Los Rios completed substantially more units before transferring.

In terms of transferable units completed at Los Rios, the non-remedial cohort completed an average of 55 units, compared to 58 units for the some remedial cohort. Looking beyond the average, 65% of the some remedial cohort completed 56 or more transfer units, compared to 61% of the non-remedial cohort and 62% of the total UC Davis transfer population. Thus the remedial cohort also completed more transferable units before entering UC Davis.

With regard to semesters and academic years completed at Los Rios, we analyzed the total UC Davis transfer group, and the remedial and non-remedial cohorts within the group, to determine whether remediation status influenced the number of terms or academic years completed at Los Rios--as it had total and transfer units completed. While total semesters attended was relatively easy to gather, determining the total number of years attended was more complicated. We calculated the years two ways: academic year equivalents (the total number of semesters attended divided by two) and actual years elapsed (from first to last semester attended).

We expected that because of the in-and-out attendance pattern of many community college students, the actual years elapsed would exceed the equivalent years. Surprisingly, as the table below shows, the data did not substantiate this theory. Further analysis on a case-by-case basis revealed that while the hypothesis was true for some students, many UC Davis-bound students took courses at Los Rios in summer sessions (which were included as semesters in the above calculations) and thus acquired more units in a given academic year than had been expected.

Comparing the total UC Davis transfer population with the non-remedial and remedial cohorts as to average number of semesters attended, academic year equivalents and academic years elapsed produced the following results:

Group	Semesters in LR	Academic Yr. Equivs.	Actual Yrs. Elapsed
Total	6.1	3.0	2.9
Non-Remedial	5.6	2.8	2.7
Some-Remedial	7.0	3.5	3.2

As the figures above reveal, the some remedial cohort had to spend almost 1½ semesters longer in Los Rios than the non-remedial cohort, who in turn spent about half a semester less than the total population average. Thus, those students who took at least some remedial work before transferring to UC Davis took

substantially longer to transfer--whether measured by actual years elapsed or academic year equivalents--than did the non-remedial students.

Measuring persistence by units completed and terms and academic years enrolled, it is clear that transfer students who needed or wanted to take remedial courses in Los Rios persisted longer by every measure than those who took no remedial work.

Persistence of CSU Sacramento Transfers

Sixty-three percent of the transfers to CSU Sacramento had completed 56 or more total units (including remedial and vocational units) at Los Rios before transferring; 34% had completed 71 or more total units. Many students thus took more units than needed either for the AA/AS degree (60 total units) or for transfer (56 transferable units). Data were analyzed further to determine the proportion of remedial units among the total units completed. The table below shows the number of remedial units taken by the 48% of CSU Sacramento transfers who took some remedial work at Los Rios:

Remedial Units	Students	Percent
Zero Units*	38	2.3%
0.1 - 2.9	45	2.8%
3.0 - 5.9	453	27.9%
6.0 - 8.9	160	9.9%
9.0 - 11.9	56	3.5%
12.0 - 14.9	12	0.7%
15.0 or more	10	0.7%
TOTALS	774	47.7%

*(38 students took remedial units but did not complete them.)

Almost all (90%) of the CSU Sacramento transfers who took remedial courses completed fewer than nine units of remedial work--generally one or two classes (average of three units per class). Thus the additional non-transferable units taken by Los Rios students before transfer generally included vocational and/or elective courses.

Almost half (49%) of the CSU Sacramento transfers completed 56 or more transferable units. Those completing fewer units may have been eligible based on their high school records, or may have earned transferable units in other institutions prior to transfer. The transfer unit breakout was as follows:

Transfer Units	Students	Percent
0.1 - 29.9	345	21.3%
30.0 - 55.9	481	29.7%
56.0 - 60.9	218	13.4%
61.0 - 70.9	340	21.0%
71.0 or more	237	14.6%
TOTALS	1621	100.0%

To determine whether remediation status influenced the number of total units, remedial units, or transferable units completed, these measures were analyzed by cohort (remedial, non-remedial). Compared to 63% of all CSU Sacramento transfers, 78% of the remedial cohort and only 50% of the non-remedial cohort had completed 56 or more total units before transferring. In fact, 46% of the remedial cohort (but only 23% of the non-remedial cohort) had completed 71 or more total units. While it is common for community college students to earn more than the minimum number of units required for transfer or a degree, these data show that students who took remedial courses also completed substantially more units before transfer to the State University than did the non-remedial students.

With respect to transferable units, students in the non-remedial cohort completed an average of 45 units, compared to 56 units in the some-remedial cohort, and an average of 50 units for all CSU Sacramento transfers. Almost 59% of the some-remedial group but only 40% of the non-remedial group completed 56 or more transferable units before attending CSU Sacramento, compared to 49% of the total group. From another perspective, the 60% of non-remedial students (but only 42% of the some-remedial group) who transferred with fewer than 56 transferable units may have been eligible upon high school graduation, or they may have earned transferable units elsewhere.

We analyzed the CSU Sacramento transfer group as a whole and by remediation status to determine whether remediation status influenced the number of terms or academic years completed at Los Rios--as it had total and transfer units completed. As with the UC Davis transfers, academic year equivalents were based on the total number of semesters attended divided by two, while actual years elapsed were based on semester and year first and last attended.

A comparison of the total CSU Sacramento transfer population with the non-remedial and remedial cohorts as to number of semesters attended, academic year equivalents and actual academic years elapsed is shown below (figures are averages for each group):

Group	Semesters in LR	Acad. Year. Equivs.	Actual Years Elapsed
Total	7.0	3.5	3.4
Non-Remedial	6.0	3.0	3.0
Some-Remedial	8.2	4.1	3.9

Again, the actual years elapsed were slightly smaller than the academic year equivalents, indicating that a number of students completed units in Los Rios summer sessions.

These figures show that the some-remedial cohort took substantially longer to transfer than did their non-remedial counterparts, regardless of the measurement: they spent 2.2 more semesters in Los Rios (and thus the equivalent of more than one extra year), as well as averaging almost a full year more in elapsed time.

Whether persistence is measured by units completed or by terms and academic years enrolled, the CSU Sacramento transfer students who needed or wanted to take remedial courses in Los Rios persisted longer than those who took no remedial work.

Comparison of Persistence: UC Davis and CSU Sacramento Transfers

The data discussed above indicate that regardless of whether students transferred to UC Davis or to CSU Sacramento, those who took remediation at the community college persisted longer than those who did not. Among transfers to both universities, the remedial students took more total units, more transfer units, and attended more semesters over a longer period of time than did their non-remedial classmates. It is to their credit that they did persist, with many going on to earn baccalaureate degrees, as later sections of this study will discuss.

Performance

For this study, performance of transfer students at Los Rios was measured primarily by transfer GPA. An often-discussed secondary measure for community college transfers is completion of the AA or AS degree. Because the associate degree is not required for transfer to either public university system in California, most transfer students do not regard it as an important objective. However, we did include an analysis of degree achievement in the community college since it is arguably one institutional measure of performance.

In addition to examining transfer GPA and associate degrees earned for each university transfer group, we compared our some remedial and non-remedial cohorts to determine whether remediation status influenced transfer GPA or AA/AS degree attainment. We also looked at the performance measures by demographic characteristics within the remediation cohorts.

We urge caution when comparing performance among groups because the cross tabulations sometimes produced very small sub-groups. For example, particularly with the transfers to UC Davis, the total numbers of American Indians, Blacks and Hispanics were small (2, 9 and 10 respectively) and the

crosstabulations often produced cells of one or two students. The narrative comparisons in these cases are suggestive only. This was not generally a problem with the CSU Sacramento group, since the total population size was much larger.

Performance of UC Davis Transfers

Performance by GPA. We first analyzed transfer GPA by gender and ethnicity for the total UC Davis transfer group. The overall average GPA was 3.18. Women transfers had higher Los Rios GPAs at 3.27 than did men (3.11). Among women, Asians had the highest GPA (3.43), followed by whites (3.32), Hispanics (2.89), and Blacks (2.84). Among men, Asians also had the highest GPA (3.22), followed by whites (3.14), American Indians (2.98), Hispanics (2.91), and Blacks (2.76). Women earned higher Los Rios transfer GPAs in every ethnic group except Hispanics. (See Table 23 in Appendix A.)

We then analyzed the Los Rios transfer GPA by age group and gender, and discovered that while most of the UC Davis transfers were young (under 21), the older students (both women and men) had higher GPAs. Among women, the three transfers 40 and older had the highest Los Rios GPA (3.72), while among men, those 25-29 had the highest (3.29). (See Table 24 in Appendix A.)

Transfer GPA also varied by remediation cohort. The non-remedial cohort had a 3.23 GPA, compared with 3.09 for the some remedial cohort. When ethnicity was added to the analysis, the non-remedial students generally still had higher GPAs. Analysis of remedial cohort by gender showed an interesting result: while women's transfer GPA was higher than men's in both cohorts (3.27 for women in each cohort), the averages for men varied considerably (3.20 for non-remedial, 2.93 for remedial). Analysis of transfer GPA by age groups within the remedial cohorts revealed again that the older students generally had higher Los Rios GPAs than younger students, regardless of cohort. (See Tables 25 through 27 in Appendix A).

Performance for the UC Davis transfers as measured by Los Rios transfer GPA was thus generally better for women than for men, for Asians and whites than for other ethnic groups, for older than younger transfers, and for non-remedial rather than remedial cohort students.

Performance by Degree. Our second performance measure was degree attainment at Los Rios. As expected, most of the UC Davis transfers (118 or 71%) did not obtain the AA degree before transferring. Relatively few transfer students receive the AA degree prior to transferring in California; because the degree is not required for transfer, many students see the additional health and PE courses required for the AA degree as impediments to their main objective of transfer and the baccalaureate degree. Considerable discussion has occurred--both within the colleges and at state policy levels--as to whether the AA degree should be granted upon passage of the required general education and transfer unit requirements, and whether a more specialized degree should be offered to those students seeking a primarily vocational or technical degree.

Of the 47 UC Davis transfers who did choose to get the AA degree, 94% received the degree during the two years immediately preceding their transfer (14 in 1982, 30 in 1983), while three received the degree after having transferred to UC Davis (in 1984 or 1985). The largest single group (19, or 40%) pursued math and science-related majors, and 11 (23%) completed general education or liberal arts majors. Examining Los Rios degree attainment by demographic characteristics showed that a higher proportion of women (32%) obtained the AA degree than did men (26%). Compared to the 29% of the total UC Davis transfer group who earned the associate degree, 40% of Hispanics, 33% of Blacks, and 31% of whites got the degree, but only 21% of Asians. More older students also earned the degree. In terms of cohort, 30% of the non-remedial students earned AA/AS degrees, compared with 26% of the remedial students.

Performance of CSU Sacramento Transfers

The performance data for CSU Sacramento transfers were analyzed in the same manner as those for UC Davis transfers (described above).

Performance by GPA. For the total group, the average Los Rios transfer GPA was 2.95. The average GPA for women (3.06) was substantially higher than that for men (2.83). Among women, whites had the highest GPA (3.13), followed by Asians (3.10), American Indians (3.02), Hispanics (2.87), and Blacks (2.57). Among men, Asians led with an average GPA of 2.94, followed by whites (2.87), American Indians (2.78), Hispanics (2.63) and Blacks (2.51). Women earned higher GPAs than men in every ethnic group. (See Table 23, Appendix B.)

Analysis of transfer GPA by age and gender revealed that women also earned higher GPAs in every age group, and that older students (both women and men) tended to make better grades than their younger counterparts. For both women and men, the highest Los Rios GPAs were earned by those 40 and over (women, 3.33; men, 3.06). (See Table 24, Appendix B.)

Transfer GPA also varied by remediation cohort. The no remedial cohort had a 3.02 transfer GPA, while the some remedial group average GPA was 2.87. When ethnicity was added to the analysis by cohort, the only notable differences were for whites, where the non-remedial group had a GPA of 3.09 compared to 2.93 for the some remedial cohort, and for Asians (3.08 compared to 2.88 for the same groups). Among the underrepresented minority groups (American Indians, Blacks, and Hispanics) there were only minor differences in GPA between the remedial and the non-remedial cohorts within each ethnic group. (See Table 25 in Appendix B.)

Analysis of the data by gender within cohort groups produced no surprises: women outperformed men in each cohort; in fact, the remedial women had a higher average GPA (2.96) than did the non-remedial men (2.89). Analysis of transfer GPA by age groups within the remedial cohorts revealed that with rare exceptions, the older the group, the better the GPA. Non-remedial transfers aged 40 and over earned the highest average GPA (3.36) of any age group. (See Tables 26 and 27, Appendix B.)

Performance for the CSU Sacramento transfers as measured by Los Rios GPA in transfer courses was thus generally better for women than for men, for whites and Asians than for other ethnic groups, for older compared to younger transfers, and for non-remedial rather than for remedial cohort students.

Performance by Degree. With respect to the second performance measure, degree attainment, 44% of the transfers to CSU Sacramento had received an AA or AS degree from Los Rios by the time of this study. Of this group, 37 (5%) received the degree prior to 1981 and 576 (81%) in the three years just prior to transferring (1981 through 1983). Interestingly, 97 (14%) received the associate degree from Los Rios after transferring to CSU Sacramento (in 1984 or later). Almost one-third (31%) of the degrees awarded to these students were in general education or liberal arts majors, and more than one-quarter (26%) were in various business fields; 13% were in math/science areas, and 11% were in the social sciences. Ten percent of the CSU Sacramento transfers completed degrees in occupational technology majors before moving on, suggesting that these students intended to acquire technical skills to help them earn a living while they continued to pursue the baccalaureate degree.

An analysis of degree attainment by demographic characteristics revealed that the degree was obtained by more women (48%) than men (40%), and by more Blacks (56%), American Indians (48%) and Hispanics (46%) than whites (44%) and Asians (39%). Generally speaking the older the students, the more likely they were to obtain the associate degree, with 48% of those 30-39 and 63% of those 40 and over doing so.

There was a substantial difference in degree attainment between cohorts: more than half (53%) of the some remedial group, but only one-third (35%) of the non-remedial group, chose to obtain the associate degree. (See Tables 31-34, Appendix B.)

Comparisons of Performance: UC Davis and CSU Sacramento Transfers

With respect to the first performance measure discussed--GPA in transferable courses taken at Los Rios--the average Los Rios GPA for UC Davis transfers was 3.18, compared with 2.95 for transfers to CSU Sacramento. Beyond that, the two study populations were remarkably similar: GPAs were generally higher for women than for men, for Asians and whites than for other ethnic groups, for older than for younger transfers, and for non-remedial as compared with remedial cohort students.

On the second performance measure, degree attainment at Los Rios, there was a substantial difference between the two groups of transfers: only 29% of the UC Davis transfers received associate degrees, compared with 44% of the CSU Sacramento transfers. The most popular community college majors for the UC Davis transfers were math/science related, while the CSU Sacramento transfers majored primarily in general education/liberal arts and business fields.

Patterns were similar for the two transfer populations with respect to demographic characteristics: women, Blacks, American Indians, Hispanics and older students were more likely to acquire the associate degree than were men, whites, Asians and younger students.

THE UNIVERSITY EXPERIENCE: UC DAVIS

Information on demographics, persistence and performance of the UC Davis transfers at the university was extracted from the UC Davis Student Affairs Research and Information Composite Undergraduate File (CUF). This is a longitudinal data base of undergraduate students enrolled at UC Davis since 1966; data for this report were updated from UC Davis Student Records System files through Fall 1989.

Preparation of UC Davis Transfers

One indication of preparation is the level--freshman, sophomore, junior or senior--at which a transfer student enters the university. Academic level at initial entry to UC Davis is determined by the number of transferable units credited upon admission. We analyzed level on entry for the UC Davis transfer group as a whole, and then for the remedial and non-remedial cohorts. The results were as follows:

	Total		Non-Remedial		Some-Remedial	
Freshmen	6.7%	(11)	6.3%	(7)	7.4%	(4)
Sophomore	25.5%	(42)	22.5%	(25)	31.5%	(17)
Junior	64.2%	(106)	66.7%	(74)	59.3%	(32)
Senior	3.6%	(6)	4.5%	(5)	1.9%	(1)
TOTALS	100.0%	(165)	100.0%	(111)	100.0%	(54)

More of the non-remedial cohort students were able to enter UC Davis as juniors (67%) than were the some-remedial students (59%), with correspondingly more of the remedial cohort students entering as freshmen and sophomores. It is likely that the students who entered as freshmen had acquired eligibility for UC Davis from high school or had few deficiencies to make up, since otherwise they would have needed 56 transferable units to enter and would then have sophomore or junior standing.

Persistence of UC Davis Transfers at the University

Persistence at the university level is described in the same terms as at Los Rios: units completed, and terms and years attended. Again, we analyzed persistence for the transfer population as a whole, by demographic characteristics, and then by remediation status.

UC Davis is on the quarter system. Students must complete at least 12 units per quarter to meet requirements for full-time status and few attend part-time. To complete degrees in the traditional time (two years for junior-level transfers), students must average 15 units per quarter (45 units per academic year).

By the end of Fall 1989, the transfer students had completed an average of 96 units at UC Davis. Ten percent had completed 135 or more units, more than half (53%) had completed 90 to 135 units, 25% had completed 45 to 90 units and just 11% had completed fewer than 45 units. Just over 70% of the remedial students completed 90 or more units while only 60% of the non-remedial students did so. This is, in part, related to the generally higher entry level of non-remedial students. There is, in fact, a strong relationship between the number of units completed and academic level at transfer.

For the next persistence measure, we analyzed the transfers to UC Davis to see if remediation status was related to the number of terms or years at UC Davis. Because UC Davis is on the quarter system we calculated equivalent academic years attended by dividing total quarters attended by three. Here also, there is a strong relationship between level at entry and time spent subsequently at UC Davis. The data analysis produced the following results:

Group	Quarters at UCD	Acad. Yr. Equivs.	Actual Yrs. Elapsed
Total	7.8	2.6	3.1
Non-Remedial	7.7	2.6	3.0
Some-Remedial	8.0	2.7	3.2

Unlike the experience at Los Rios, actual years elapsed at UC Davis exceeded equivalent academic years by about one-half year. This is not unusual; many UC Davis students leave for a quarter and then return. Although it was not practical to determine how many summer sessions were included among the quarters registered, it is likely few would have attended in summer because the fees are high.

Whatever the measure, it is clear from the table above that students who took remedial courses at Los Rios stayed slightly longer at UC Davis than their non-remedial counterparts. Since the remedial students had already spent a longer time at Los Rios, their continued persistence was admirable.

Performance of UC Davis Transfers at the University

For this study, performance at UC Davis was measured first by cumulative university GPA, and then by achievement of degree. Grade point average and degree attainment were analyzed by demographics and then by cohort (some-remedial, non-remedial) to see if there were differences in performance on these two measures of success. As discussed previously, because some groups were small to begin with (e.g., American Indians, Blacks and Hispanics), some crosstabulating produced groups too small for meaningful analysis. Averages are thus compared only for groups of five or more students.

Performance by GPA

The average university GPA for the total UC Davis transfer group was 2.79. Examining GPA by gender, women had higher average GPAs (2.90) than did men (2.70), as was the case in Los Rios. When ethnicity was added to the analysis, white and Asian women had the highest GPAs (2.98), followed by white men (2.79). Women had higher after-transfer GPAs than men in every ethnic group with five or more students. (See Table 43 in Appendix A.) Women also had higher GPAs in every age group. (See Table 44 in Appendix A.)

The UC Davis cumulative GPA also varied by remediation status. Compared to the average GPA of 2.79 for all transfers to UC Davis, the non-remedial cohort students had a higher average GPA (2.83) than did those who had taken some remedial work while at Los Rios (2.69). Women had higher GPAs in both cohorts than did men: non-remedial cohort women earned an average GPA of 2.93, compared to 2.76 for men; women in the remedial cohort had a 2.84 GPA, compared to 2.56 for the men.

Adding ethnicity to the analysis by cohort and gender revealed that among men in the non-remedial cohort, whites had the highest GPA (2.87), followed by Asians (2.72). Among women in the non-remedial cohort, Asians led at 3.08, followed by whites (2.98). In the some-remedial cohort, among men whites averaged 2.63, and Asians 2.56. White women averaged 2.97. (See Table 45 in Appendix A).

Analysis of the UC Davis GPA by age groups within the remedial status cohorts showed that, generally, older students had higher GPAs than younger students, except for males aged 18-20. (See Table 46 in Appendix A.)

In summary, performance at UC Davis as measured by GPA was thus better for women than for men, for Asians and whites compared to other ethnic groups, for older compared to younger students, and for non-remedial as compared to remedial cohort students--essentially the same performance results as for these groups at Los Rios. This information suggests that performance at Los Rios is a good predictor of after-transfer performance at the university.

Performance by Degree

Perhaps the most important indicator of transfer success is attainment of the baccalaureate degree. While students may successfully transfer and earn good grade point averages, the ultimate symbol of success is the degree. For the UC Davis transfer group as a whole, 81% had received the baccalaureate degree by the '89-'90 academic year (within six years of their '83-'84 entrance to UC Davis). Interestingly, over two-thirds (69%) had earned their degrees by the end of their third academic year at UC Davis. (See Table 47 in Appendix A.) More than half (56%) of the degrees were granted through the College of Letters and Science; 28% were in Agriculture and Environmental Science, and 16% were in Engineering.

Analysis of baccalaureate degree attainment by demographics revealed that a smaller percentage of women graduated (78%) than men (83%). Among ethnic groups, more whites earned degrees (86%) than did Asians (82%) or students from other ethnic groups (62%). Although there were too few American Indians, Blacks and Hispanics to calculate valid graduation rates for each group, it should be noted that among the graduates were both American Indians, four of the nine Blacks and seven of the ten Hispanics. Analyses by age at entry to UC Davis indicated that students 21 to 24 enjoyed the highest graduation rate (89%), followed by 18 to 20 year-olds (80%) and 25 to 29 year-olds (78%). Four of the eight 30 to 39 year-old transfers graduated, as did all three of the 40 and older students. (See Tables 49 through 52 in Appendix A.)

When we evaluated degree attainment by remediation status, we discovered that 84% of the non-remedial cohort had graduated, compared to 74% of those who had taken some remedial work at the community college. (See Table 52, Appendix A.) In addition, 15% of the remedial cohort students and 6% of the non-remedial group had attained senior standing as of Fall '90, and might be expected to graduate within the next academic year.

In summary, somewhat more men, whites, non-remedial and younger students earned degrees than did women, non-whites, remedial and older students.

THE UNIVERSITY EXPERIENCE: CSU SACRAMENTO

Preparation of CSU Sacramento Transfers

Since the level at which a student enters the university--freshman, sophomore, junior or senior--is one indication of preparation, we analyzed academic level on entry to CSU Sacramento by the number of transfer units credited on admission. We analyzed level on entry for the CSU Sacramento group as a whole, and then for the some-remedial and non-remedial cohorts. The results were as follows:

	Total		Non-Remedial		Some-Remedial	
Freshmen	28.7%	(466)	28.6%	(242)	28.9%	(224)
Sophomore	8.9%	(144)	8.7%	(74)	9.0%	(70)
Junior	55.9%	(906)	55.0%	(466)	56.8%	(440)
Senior	6.5%	(105)	7.7%	(65)	5.2%	(40)
TOTALS	100.0%	(1621)	100.0%	(847)	100.0%	(744)

Clearly, the majority (56%) of the CSU Sacramento transfers entered the university as juniors, with slightly more of the some-remedial cohort doing so than the non-remedial cohort. The fact that substantial proportions also entered as freshmen suggests that these students had earned eligibility for the state university upon graduation from high school.

Persistence of CSU Sacramento Transfers at the University

Persistence at the university level is described in the same terms as at Los Rios: units completed, and terms and years attended. Again, we wanted to analyze persistence for each university's transfer population as a whole, by demographic characteristics, and then by remediation status.

CSU Sacramento is on the semester system, with 15 semester units per semester being considered "full-time" attendance; thus, 30 units are generally considered equivalent to one academic year. As of the end of the Spring '90 semester, the transfers had completed an average of 45 semester units at CSU Sacramento. Almost 29% of all transfers had completed between 61 and 90 units at CSU Sacramento--equivalent to at least two years but not more than three, which might be the expected number of units needed to graduate for students who transferred with 56 or more transferable units (as 49% of the CSU Sacramento transfers had done). Almost 38% had completed fewer than 30 units at CSU Sacramento; 27% had completed between 30 and 60 units, and 7% had completed 91 or more. (See Table 37 in Appendix B.)

When data on units completed at CSU Sacramento are analyzed on the basis of remediation cohort, the following information emerges: the average number of units completed by the non-remedial group was 47, compared to 43 for the remedial group. Forty percent of the non-remedial group had transferred with 56 or more transferable units; by the end of Spring '90, 30% of all non-remedial transfers had completed 61 to 90 units at CSU Sacramento, and another 8% had completed 91 units or more. Of the remedial cohort, 59% had transferred with 56 or more transferable Los Rios units; by the end of Spring '90, 28% of all remedial transfers had completed 61-90 units at CSU Sacramento and another 6% had completed 91 or more.

Average terms attended, academic year equivalents, and actual years elapsed of CSU Sacramento transfers were as follows:

Group	Terms at CSUS	Acad. Yr. Equivs.	Actual Yrs. Elapsed
Total	5.6	2.8	3.5
Non-Remedial	5.6	2.8	3.5
Some-Remedial	5.5	2.7	3.6

As these figures show, the "expected" ratio of elapsed years to equivalent years--and thus the "stopping out" pattern--is even more obvious: on the average, transfers to CSUS actually attended the equivalent of 2.8 years while an average of 3.5 years elapsed.

Compared with the difference in persistence between the remedial and non remedial cohorts at Los Rios and at UC Davis, it is interesting to note that there is very little difference between the CSU Sacramento remedial and non-remedial cohorts on these measures.

Performance of CSU Sacramento Transfers at the University

For this study, performance at CSU Sacramento was measured first by cumulative university GPA, and then by achievement of degree. Grade point average and degree attainment were analyzed by demographics and then by cohort (some-remedial, non-remedial) to see if there were differences in performance on these two measures of success.

Performance by GPA

The average university GPA for the total CSU Sacramento transfer group was 2.52. Examining GPA by gender, women had higher average GPAs (2.62) than did men (2.42), as was in the case in Los Rios. When ethnicity was added to the analysis, Asians had the highest GPAs among both men and women (2.52 and 2.72, respectively). White females were second at 2.68, and white males tied the Asian males at 2.52. Among women, American Indians averaged 2.44; Hispanics, 2.43; and Blacks, 2.15. Among men, American Indians averaged 2.40, Hispanics, 2.07, and Blacks, 1.92. Thus, women had higher after-transfer GPAs in every ethnic group; the gender difference was greatest among Hispanics, where women averaged 2.43 compared to 2.07 for men.

An examination of university GPA by age group and gender emphasized the "GPA gender gap" even more: women in every age group had higher average GPAs than men in the same group. The highest average GPA was earned by women aged 30 to 39 (2.82), followed by women 40 and over (2.76), women 25-29 (2.64) and women 18-20 (2.58). Among men, the highest average GPA was earned by those 18 to 20 years old (2.58), followed by the 30-39 group (2.53). Thus performance at the university for CSU Sacramento transfers was better for women in general--especially older women--and for younger men. (See Table 44, Appendix B.)

The CSU Sacramento cumulative GPA also varied for the remediation cohorts. The non-remedial group earned an average GPA of 2.59, while those who had taken remedial courses in Los Rios had an average GPA of 2.44 at the university. Women earned higher GPAs in both cohorts than did men: in the non-

remedial cohort, women averaged 2.72 while men averaged 2.47; women in the "some remedial" cohort averaged 2.51, compared to 2.37 for men in the same group.

When ethnicity was added to the analysis by cohort and gender, the data showed that among men in the non-remedial cohort the highest average GPAs were earned by whites (2.58), followed closely by Asians (2.56); American Indian men averaged 2.31; Hispanic men, 2.26; and Black men, 1.97. Among women in the non-remedial cohort, American Indian women were highest at 2.82, followed by Asian women at 2.80 and white women at 2.74, Hispanic women, 2.20, and Black women, 2.07. Of the men in the "some remedial" cohort, the highest average GPA was earned by whites at 2.46, followed closely by American Indian men at 2.45 and Asian men at 2.44; Hispanic men averaged 1.94 and Black men, 1.87. Among women in the "some remedial" cohort, white women were highest with an average GPA of 2.61. Asian women averaged 2.59; Hispanic women, 2.55; Black women, 2.19; and American Indian women, 2.11. (See Table 45 in Appendix B.)

Analysis of the CSU Sacramento GPA by age groups within the remedial status cohorts showed that, within the non-remedial cohort, highest average GPAs were earned by those 40 and over (2.93), followed by the 30-39 group at 2.89; the youngest group (those aged 18-20) were next at 2.65. Highest averages in the "some remedial" group were earned by those 30 to 39 (2.57), followed by the 18-20 group at 2.49. Those aged 25 to 29 earned an average of 2.47, while the 40-and-over averaged 2.41.

Performance by Degree

With respect to attainment of the baccalaureate degree, 845 (52%) of the CSU Sacramento transfers had graduated by Spring 1990 (within six years of their '83-'84 entrance into CSU Sacramento). More than one-third (35%) completed their degree within three years after transferring, but after that the numbers and percentages declined somewhat in each succeeding year (9% in 1987, 5% in 1988, and 4% in 1989-90). It is of interest to note that by the time of this study, 34 (2%) had gone on to earn a second degree as well (another bachelor's or a master's degree). More than one-third (35%) of the degrees were granted in various areas of business administration; 20% were in social science fields; and engineering and education each accounted for around 9% of the degrees.

A slightly higher percentage of females (53%) than males (51%) had completed a baccalaureate degree by the time of this study. Among ethnic groups, degrees were earned by 61% of Asians, 55% of whites, 41% of Hispanics, 39% of American Indians, and 30% of Black transfer students. With respect to age groups, 58% of the youngest group (age 18-20 at entrance to CSU Sacramento) graduated, as did 49% of those aged 21 to 24, 47% of those aged 25 to 29, 53% of those age 30-39, and 42% of those 40 and over. Almost 54% of the non-remedial students and more than 50% of those who took remedial courses at Los Rios had received their baccalaureate degrees by Spring 1990.

RESULTS: PROFILES OF SUCCESSFUL TRANSFER STUDENTS

The Many Faces of Success

For this study, we defined a successful transfer student as one who had received his or her baccalaureate degree. Since our study included only degrees obtained from UC Davis or CSU Sacramento, it is possible that some of the students in the study population transferred to another UC or CSU campus and received their degrees; we had no way of determining the percentage of students who might have done this. However, our analysis of student preparation, persistence and performance has provided us a rich data base on which to determine the characteristics of successful transfer students.

As mentioned earlier in the study, performance at Los Rios was a good predictor of later success at the two universities. While the pre-transfer GPA was higher for the UC Davis transfers (3.18) than for those to CSU Sacramento (2.95), beyond that the two transfer groups were very similar: GPAs were generally higher for women than for men, for Asians and whites compared to other ethnic groups, for older compared to younger students, and for non-remedial as compared to remedial cohort students. At the university level, performance followed essentially the same pattern.

However, degree attainment at the two universities varied somewhat in terms of the demographics of degree recipients. The table on the next page on "Population Comparisons: Demographics" shows the ethnicity, gender and age groups of the UC Davis and CSU Sacramento transfers and graduates, and the Los Rios Fall 1983 student population. While women (of all ethnic groups) generally outperformed men in terms of GPA both before and after transfer, a lower proportion of them received degrees at UC Davis (78% of women, compared to 83% of men). This was not the case at CSU Sacramento, where 53% of women received their degrees compared to 51% of the men. Earlier in the study we talked about the "GPA gender gap" in terms of the male/female performance situation; unfortunately, one finding of this study seemed to be the existence of a "GPA graduation gap" at UC Davis. This was particularly disturbing considering the high persistence and performance of the women transfers. However, further analysis by the UC Davis research staff revealed that the lower graduation rate of women among the Los Rios transfers reflected the rates found among all UC Davis transfers who entered in the 1983-84 academic year. In fact, examination of UC Davis longitudinal cohorts showed that a higher proportion of men than women graduated annually until the 1984-85 academic year, when the situation reversed. Since that year, higher proportions of women than men have earned baccalaureate degrees, with graduation rates more closely mirroring women's persistence and performance.

In terms of ethnicity, the table shows that while whites were 60% of the UC Davis transfers, they were 63% of the degree recipients; Asians were 23% of transfers and 23% of degree earners; American Indians were 1% of transfers and 1.5% of degree earners; Hispanics were 6% and 5%, respectively; and Blacks were 6% of transfers and 3% of degree earners. The picture at CSU Sacramento was similar; whites were 64% of CSU Sacramento transfers and 67% of degree earners; Asians were 14% and 16% respectively; American Indians were 1% of both transfers and degree winners; Hispanics were 7% and 6% respectively; and Blacks were 7% of transfers but only 4% of CSU Sacramento degree earners. Some of the difference in graduation rates can be explained by differences in performance of the different ethnic groups both before and after transfer, and university and Los Rios staff have a number of programs underway to provide assistance and special support services to transfer students to improve their transfer and graduation rates. These programs should be evaluated to determine their effectiveness, particularly for ethnic minority students.

Population Comparisons: Demographics

(Based on Los Rios Transfer Study Populations
N = 165 for UCD; N = 1621 for CSUS)

	Ethnicity*					Gender		Age				
	White	Asian	Hisp.	Black	Am. Ind.	M	F	18-20	21-24	25-29	30-39	40+
F '83 LR Students	65%	8%	7%	10%	2%	44%	56%	28%	21%	18%	20%	12%
			(19% underrep. minorities)					(Fall 1983 = 1st semester >50% students over 24.)				
UCD Transfers	60%	23%	6%	6%	1%	56%	44%	58%	22%	14%	5%	2%
			(13% underrep. minorities)					80%			7%	
CSUS Transfers	64%	14%	7%	7%	1%	50%	50%	37%	34%	15%	10%	5%
			(15% underrep. minorities)					71%			15%	
UCD Graduate %	63%	23%	5%	3%	1.5%	57%	43%	57%	24%	14%	3%	2%
								81%			5%	
UCD % w/BA[1]	86%	82%	**	**	**	83%	78%	80%	89%	78%	50%	100%
			(62% underrep. minorities)									
CSUS Graduate %	67%	16%	6%	4%	1%	48.5%	51.5%	41%	32%	14%	10%	4%
								73%			14%	
CSUS % w/BA[2]	55%	61%	41%	30%	39%	51%	53%	58%	49%	47%	53%	42%

* Does not equal 100% since Unknowns and No Response are excluded.
** Specific graduation rates by these ethnic groups not calculated due to small numbers.

[1]UCD Transfers average % with BA = 81%.

[2]CSUS Transfers average % with BA = 52%.

When age groups are examined, as the table indicates, the 18-20 and 21-24 age groups accounted for 80% of the UC Davis transfers and 81% of the UC Davis graduates. At CSU Sacramento, these same two age groups comprised 71% of the transfers and 73% of the degree earners. What is interesting to note, however, is that 5% of the UC Davis and 14% of the CSU Sacramento graduates were 30 years of age or older, providing evidence that older students can and do transfer and graduate from the two universities.

The analysis by remedial cohort done earlier in this study showed that at UC Davis, 84% of the non-remedial and 74% of the some-remedial cohorts had graduated by the time of this study. At CSU Sacramento, the results were 54% and 50%, respectively. Thus while needing or choosing to take remedial courses at Los Rios before transfer had some effect on persistence and performance (as we discussed earlier in the study), it had less effect on graduation than we had imagined. While remedial cohort students had to persist longer and performed at a somewhat lower level than their non-remedial counterparts, substantial proportions of this group had in fact graduated by the time of this study.

Perhaps the most important finding of this study is that while a single profile of the successful transfer student can be said to include more men, whites, Asians and younger students at UC Davis, and more women, Asians, whites and somewhat older students at CSU Sacramento, it is clear that there are other profiles of successful transfer students, profiles that include women and men of Black, Hispanic and American Indian background, older students in each ethnic group, and students who started their academic careers in remedial courses. The good news is that students from each of these non-traditional transfer groups did successfully transfer and did complete degrees at both of the universities. In particular, those who took remedial courses at Los Rios still went on to obtain baccalaureate degrees.

This information should be shared by counselors, program directors and faculty with students in these non-traditional populations to indicate that success is indeed possible. For those who work with transfer programs on a daily basis at each of the three institutions, the data in this study provide evidence both of success and of where additional or continued emphasis must be placed. For students, the message is a clear one: good performance at the community college level can mean successful transfer and a good possibility of attaining the baccalaureate degree, even for students who have to take remedial courses first to strengthen their abilities.

Comparison of Profiles to Los Rios Student Population

The previous table displays the percentages of the Los Rios Fall 1983 student population compared to the transfer and graduate populations in our study. The argument is sometimes made that the transfer group should reflect the same demographics as found in the Los Rios student population; as can be seen, the demographics differ. While women comprised 56% of the Fall '83 student population at Los Rios, they made up only 44% of the transfers to UC Davis and 50% of the transfers to CSU Sacramento. In terms of ethnicity, whites constituted a lower proportion of the transfers to both universities than their percentage of the student population, while Asians accounted for a far higher percentage of the transfers to both universities than their proportion of the Los Rios Fall '83 student body. American Indians and Blacks were represented in lower proportions among the transfers than their percentages in the student population; Hispanics were slightly lower among UC Davis transfers, but held the same percentage among CSU Sacramento transfers as their percentage of the Los Rios student body.

The situation for age groups is perhaps the most interesting. Fall 1983 was the first semester in which 50% of the Los Rios student body was over the age of 24, yet 80% of the UC Davis transfers and 71% of the CSU Sacramento transfers were under the age of 25, in the 18-20 and the 21-24 age groups. In the years since 1983, the Los Rios student body has continued to "age", with increasing proportions of older students. Since younger students, as this study has shown, are more likely to transfer, the trend of community college student populations toward more older students may mean fewer transfers--unless older students are encouraged to transfer. As this study has shown, those older students who do transfer do very well in persistence, in performance and in attainment of both associate and baccalaureate degrees. This information should be useful to re-entry program directors as well as to Transfer Center directors in terms of encouraging older students to consider transfer as an option.

Comparison of Los Rios Transfers to University Native and Other Transfer Students

In order to determine how the Los Rios transfers compared to the two universities' native students (those who entered as freshmen) and to other community college transfers, the research staffs at UC Davis and CSU Sacramento provided performance data for the various groups. Results showed the Los Rios transfers to be highly successful as indicated in the table below:

Comparative Graduation Rates (within 6 years)		
	UC Davis	CSU Sacramento
Los Rios Transfers ('83-'84)	81%	52%
All CC Transfers (Fall 1983)	75%[1]	53%[2]
Native Students (Fall 1981)	72%[3]	40%[2]

Clearly, the Los Rios transfers to UC Davis as measured by baccalaureate degree attainment were more successful than either the general community college transfer cohort or the UC Davis native students. The Los Rios transfers to CSU Sacramento graduated at essentially the same rate as all community college transfers to that university, but at a substantially higher rate than the CSU Sacramento native students. These findings suggest that the long history of cooperation in transfer efforts between and among Los Rios and its neighboring universities has enhanced the opportunities for students to be successful transfers and degree winners. While precise cause-and-effect relationships cannot be claimed, it does appear that cooperative planning and implementation of transfer programs, transfer centers and transfer agreements may indeed be making a difference in terms of successful transfer students.

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[1]"Enrollment and Graduation Patterns of Undergraduates Transferring to UC Davis: 1976-1989;" Research Synopsis, Student Affairs Research and Information, No. 34, February 1990, UC Davis.

[2]CSU Sacramento Office of Institutional Studies analysis of cohorts, April 1991; and "Retention and Graduation Report, Executive Summary," Office of Institutional Studies, CSU Sacramento, December 1987.

[3]"Graduation Rates of UC Davis Undergraduates--Students Entering 1975-1984," Research Synopsis, Student Affairs Research and Information, No. 38, November 1990, UC Davis.

CONCLUDING OBSERVATIONS

Data Issues

Undertaking a longitudinal study of student transfer, even with only two other institutions, quickly convinces those involved that there is a serious need for a statewide follow-up system for transfer students. While the cooperation we enjoyed in sharing data tapes, procedures and definitions of variables demonstrated that such studies can be done, the different definitions of "source schools", the problems of concurrent enrollment, and the patterns of summer school attendance all suggest implementation of a better system to track transfer students as they move into and among the university campuses.

Los Rios was the first district to document the "fall-only undercount" problem with the annual transfer data reported by the California Postsecondary Education Commission. As this study shows, substantial numbers of students transfer during the winter and spring terms, and even during the summer. Agreement on source school definitions that are consistent between the two university segments, and a state-level agreement on reporting all community college transfers, regardless of when they transfer, would go far in helping make such studies easier--and information on the relative success of the transfer function more reliable. The ultimate goal should be the implementation of a state-level system for tracking students as they move among the institutions. The Postsecondary Education Commission has studied the potential for implementing such a system; the technology is available, but resources and the time it takes to convert to such a system seem to be the current barriers.

The ability to conduct a transfer follow-up study on a statewide level was recently proven by the Mt. San Antonio Community College District with the release in January 1991 of their study on Variables Affecting the Academic Success of Community College Transfer Students. This study was done on a data base of former Mt. SAC students who had attended the campuses of the University of California and the State University system between the summer of 1978 and the spring of 1987; substantial cooperation in preparing the data base was received from the two universities' systemwide offices. The Mt. SAC study also underscores the importance of implementing "a new system of evaluating student progress through higher education in California," and states that "Until this occurs and a cooperative tracking system can be developed between the California Community Colleges and the state universities to follow students as long as they remain in the system, present efforts to determine valid transfer rates are futile" (p.52).

Of substantial importance to this study was our ability to identify and follow students who had taken remedial courses in Los Rios, and to compare them to those Los Rios transfers who had not in terms of preparation, persistence and performance. As explained in the section on the Los Rios Student Performance Data Base, this ability to do computerized transcript analysis made the performance analyses by cohort possible; the ability for the two universities to do this would have provided answers to the question of whether the remedial cohort students from Los Rios were sufficiently prepared so as not to have to take remedial courses at the university level after transferring.

We had originally wanted to determine what proportion of the Los Rios transfers had actually been eligible for entrance to each university from high school; the lack of high school transcripts for most community college students, and even at the university for transfer students, precluded our exploring this area. Overall, however, we were quite pleased with the substantial amounts of data that were available on the transfer students and could be shared via data tapes among the institutions.

Suggestions for Further Research

The study done by the Mt. San Antonio District and a similar one done by the Santa Barbara District both involve analyzing variables associated with successful transfer, based on questionnaires sent to transfer students. We would like to send similar questionnaires to our own study population, to add the student perception dimension to our work on preparation, persistence and performance. We believe that the ability to correlate students' perceptions of themselves, their backgrounds, their performance and the institutional climate both before and after transfer, with the kinds of data analyzed in this study, would produce a more comprehensive picture of the reasons for successful vs. unsuccessful transfer than either data or student perceptions alone.

Of additional interest would be further analysis (perhaps through interviews) of the more nontraditional but successful transfers--the older students, Blacks, Hispanics and American Indians. Their perceptions about what variables contributed to their successful transfer and degree attainment could add considerable depth to the transfer analysis and suggestions for transfer program improvement.

With a variety of programs at all three institutions in this study designed to attract and assist underrepresented minority students in successfully transferring and in persisting to degrees, efforts should next be expended in evaluating these programs from both the institutional and student perspectives. Which programs are working best and why should be determined, so that resources and students can be directed to the most effective programs to help them achieve success. The importance of strong performance at the community college level and its link to subsequent performance and degree attainment at the university should continue to be stressed with students from all backgrounds.

With the study population clearly defined and resident on our mainframe computer at Los Rios, we should be able to undertake at least some of the research suggested above. It is our belief that the staff time and resources expended in these efforts will continue to clarify the issues and facts surrounding the transfer function, help our colleges succeed in their primary mission, and help students achieve their goal of successful transfer.

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APPENDIX A: UC Davis Cohort Tables

(Note: These tables of frequencies and cross-tabulations are provided for reference. However, we urge caution when comparing groups since some cross-tabulations produced sub-groups too small for definitive analysis.)

TABLE 1
UCD SURVEY POPULATION
Transfer Units Earned in Los Rios/Prior School Credited

UNITS COMPLETED--> / SCHOOL CR.	Count / Row Pct / Col Pct	0.1 TO 2 9.9 UNIT 2	30.0 TO 55.9 UNI 3	56.0 TO 60.9 UNI 4	61.0 TO 70.9 UNI 5	71.0 OR MORE UNI 6	Row Total
1 CREDITED TO L.R.		29 18.5 100.0	33 21.0 100.0	30 19.1 90.9	31 19.7 93.9	34 21.7 91.9	157 95.2
2 CREDITED TO UC					1 100.0 3.0		1 .6
3 CREDITED TO CSU				1 20.0 3.0	1 20.0 3.0	3 60.0 8.1	5 3.0
4 CR TO OTHER CC				1 100.0 3.0			1 .6
8 UNIDENTIFIED				1 100.0 3.0			1 .6
Column Total		29 17.6	33 20.0	33 20.0	33 20.0	37 22.4	165 100.0

TABLE 2
GENDER FREQUENCIES

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
MALE	1	92	55.8	55.8	55.8
FEMALE	2	73	44.2	44.2	100.0
	TOTAL	165	100.0	100.0	

TABLE 3
ETHNICITY FREQUENCIES

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
American Indian	1	2	1.2	1.2	1.2
African-American	2	9	5.5	5.5	6.7
Mexican-American, Ch	3	10	6.1	6.1	12.7
Asian, Pacific Is	6	38	23.0	23.0	35.8
White	8	98	59.4	59.4	95.2
Unknown - Other	9	8	4.8	4.8	100.0
	TOTAL	165	100.0	100.0	

TABLE 4
AGE GROUP FREQUENCIES

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
18 TO 20	1	95	57.6	57.6	57.6
21 TO 24	2	36	21.8	21.8	79.4
25 TO 29	3	23	13.9	13.9	93.3
30 TO 39	4	8	4.8	4.8	98.2
40 & OVR	5	3	1.8	1.8	100.0
	TOTAL	165	100.0	100.0	

TABLE 5
AVERAGE AGE BY GENDER

Variable	Value	Label	Mean	Std Dev	Cases
For Entire Population			22.1091	5.2858	165
GENDER	1	MALE	21.4348	3.4460	92
GENDER	2	FEMALE	22.9589	6.8788	73

TABLE 6
AVERAGE AGE BY ETHNICITY

Variable	Value	Label	Mean	Std Dev	Cases
For Entire Population			22.1091	5.2858	165
ETHNIC	1	American Indian	20.5000	.7071	2
ETHNIC	2	African-American	24.2222	9.1894	9
ETHNIC	3	Mexican-American, Ch	20.5000	1.8409	10
ETHNIC	6	Asian, Pacific Is	21.0000	3.0135	38
ETHNIC	8	White	22.6429	5.8719	98
ETHNIC	9	Unknown - Other	20.8750	2.2952	8

TABLE 7
NON-REMEDIAL/REMEDIAL COHORTS

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
NO REMED	1	111	67.3	67.3	67.3
SOME REM	2	54	32.7	32.7	100.0
	TOTAL	165	100.0	100.0	

TABLE 8
NON-REMEDIAL/REMEDIAL COHORTS
Types of Remedial Courses Taken

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
NONE	1	111	67.3	67.3	67.3
REMEDIAL ENGLISH	2	25	15.2	15.2	82.4
REMEDIAL MATH	3	19	11.5	11.5	93.9
BOTH ENGLISH & MATH	4	10	6.1	6.1	100.0
	TOTAL	165	100.0	100.0	

TABLE 9
GENDER BY COHORTS

COHORT -> / GENDER	Count / Row Pct / Col Pct	NO REMED 1	SOME REM 2	Row Total
1 MALE		63 68.5 56.8	29 31.5 53.7	92 55.8
2 FEMALE		48 65.8 43.2	25 34.2 46.3	73 44.2
	Column Total	111 67.3	54 32.7	165 100.0

TABLE 10
ETHNICITY BY COHORTS

COHORT -> / ETHNICITY	Count / Row Pct / Col Pct	NO REMED 1	SOME REM 2	Row Total
1 American Indian		2 100.0 1.8		2 1.2
2 African-American		4 44.4 3.6	5 55.6 9.3	9 5.5
3 Mexican-American		7 70.0 6.3	3 30.0 5.6	10 6.1
6 Asian, Pacific I		29 76.3 26.1	9 23.7 16.7	38 23.0
8 White		64 65.3 57.7	34 34.7 63.0	98 59.4
9 Unknown - Other		5 62.5 4.5	3 37.5 5.6	8 4.8
	Column Total	111 67.3	54 32.7	165 100.0

TABLE 11
AVERAGE AGE BY COHORTS

Variable	Value	Label	Mean	Std Dev	Cases
For Entire Population			22.1091	5.2858	165
COHORTR	1	NO REMED	21.6847	5.0740	111
COHORTR	2	SOME REM	22.9815	5.6451	54

TABLE 12
AGE GROUPS BY COHORTS

COHORT -> / AGE GROUP	Count / Row Pct / Col Pct	NO REMED 1	SOME REM 2	Row Total
18 TO 20	1	68 71.6 61.3	27 28.4 50.0	95 57.6
21 TO 24	2	23 63.9 20.7	13 36.1 24.1	36 21.8
25 TO 29	3	14 60.9 12.6	9 39.1 16.7	23 13.9
30 TO 39	4	4 50.0 3.6	4 50.0 7.4	8 4.8
40 & OVR	5	2 66.7 1.8	1 33.3 1.9	3 1.8
	Column Total	111 67.3	54 32.7	165 100.0

TABLE 13
YEAR OF ENTRY IN LOS RIOS BY COHORTS

COHORT -> / YEAR ENTERED LR	NO REMED (1)	SOME REM (2)	Row Total
72-73	1 100.0 .9		1 .6
74-75	3 75.0 2.7	1 25.0 1.9	4 2.4
76-77	1 50.0 .9	1 50.0 1.9	2 1.2
77-78	1 25.0 .9	3 75.0 5.6	4 2.4
78-79	6 75.0 5.4	2 25.0 3.7	8 4.8
79-80	6 37.5 5.4	10 62.5 18.5	16 9.7
80-81	28 59.6 25.2	19 40.4 35.2	47 28.5
81-82	46 78.0 41.4	13 22.0 24.1	59 35.8
82-83	19 79.2 17.1	5 20.8 9.3	24 14.5
Column Total	111 67.3	54 32.7	165 100.0

TABLE 14
TOTAL UNITS COMPLETED IN LOS RIOS

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
0.1 TO 29.9 UNITS	2	23	13.9	13.9	13.9
30.0 TO 55.9 UNITS	3	32	19.4	19.4	33.3
56.0 TO 60.9 UNITS	4	21	12.7	12.7	46.1
61.0 TO 70.9 UNITS	5	37	22.4	22.4	68.5
71.0 OR MORE UNITS	6	52	31.5	31.5	100.0
	TOTAL	165	100.0	100.0	

TABLE 15
REMEDIAL UNITS COMPLETED IN LOS RIOS

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
ZERO UNITS	1	7	4.2	4.2	4.2
0.1 TO 2.9 UNITS	2	2	1.2	1.2	5.5
3.0 TO 5.9 UNITS	3	29	17.6	17.6	23.0
6.0 TO 8.9 UNITS	4	9	5.5	5.5	28.5
9.0 TO 11.9 UNITS	5	6	3.6	3.6	32.1
12.0 TO 14.9 UNITS	6	1	.6	.6	32.7
COHORT 1 (No Remedial Units)	20	111	67.3	67.3	100.0
	TOTAL	165	100.0	100.0	

TABLE 16
TRANSFER UNITS COMPLETED IN LOS RIOS

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
0.1 TO 29.9 UNITS	2	29	17.6	17.6	17.6
30.0 TO 55.9 UNITS	3	33	20.0	20.0	37.6
56.0 TO 60.9 UNITS	4	33	20.0	20.0	57.6
61.0 TO 70.9 UNITS	5	33	20.0	20.0	77.6
71.0 OR MORE UNITS	6	37	22.4	22.4	100.0
	TOTAL	165	100.0	100.0	

TABLE 17
TOTAL UNITS COMPLETED IN LOS RIOS BY COHORTS

COHORT -> / UNITS COMPLETED	Count / Row Pct / Col Pct	NO REMED 1	SOME REM 2	Row Total
0.1 TO 29.9 UNIT	2	21	2	23
		91.3	8.7	13.9
		18.9	3.7	
30.0 TO 55.9 UNI	3	21	11	32
		65.6	34.4	19.4
		18.9	20.4	
56.0 TO 60.9 UNI	4	16	5	21
		76.2	23.8	12.7
		14.4	9.3	
61.0 TO 70.9 UNI	5	25	12	37
		67.6	32.4	22.4
		22.5	22.2	
71.0 OR MORE UNI	6	28	24	52
		53.8	46.2	31.5
		25.2	44.4	
	Column Total	111	54	165
		67.3	32.7	100.0

TABLE 18
AVERAGE TRANSFER UNITS COMPLETED, BY COHORTS

Variable	Value	Label	Mean	Std Dev	Cases
For Entire Population			55.7636	21.7483	165
COHORTR	1	NO REMED	54.7252	22.8039	111
COHORTR	2	SOME REM	57.8981	19.4270	54

TABLE 19
TRANSFER UNITS COMPLETED, BY COHORTS

COHORT -> / TRANSFER UNITS	NO REMED (1)	SOME REM (2)	Row Total
0.1 TO 29.9 UNIT (2)	Count 22 Row Pct 75.9 Col Pct 19.8	Count 7 Row Pct 24.1 Col Pct 13.0	29 17.6
30.0 TO 55.9 UNI (3)	Count 21 Row Pct 63.6 Col Pct 18.9	Count 12 Row Pct 36.4 Col Pct 22.2	33 20.0
56.0 TO 60.9 UNI (4)	Count 20 Row Pct 60.6 Col Pct 18.0	Count 13 Row Pct 39.4 Col Pct 24.1	33 20.0
61.0 TO 70.9 UNI (5)	Count 22 Row Pct 66.7 Col Pct 19.8	Count 11 Row Pct 33.3 Col Pct 20.4	33 20.0
71.0 OR MORE UNI (6)	Count 26 Row Pct 70.3 Col Pct 23.4	Count 11 Row Pct 29.7 Col Pct 20.4	37 22.4
Column Total	111 67.3	54 32.7	165 100.0

TABLE 20
AVERAGE NUMBER SEMESTERS ATTENDED LOS RIOS

Variable	Value	Label	Mean	Std Dev	Cases
For Entire Population			6.0788	2.8198	165
COHORTR	1	NO REMED	5.6486	2.9377	111
COHORTR	2	SOME REM	6.9630	2.3469	54

TABLE 21
AVERAGE NUMBER YEARS ELAPSED, LOS RIOS

Variable	Value	Label	Mean	Std Dev	Cases
For Entire Population			2.8606	1.7033	165
COHORTR	1	NO REMED	2.7027	1.7560	111
COHORTR	2	SOME REM	3.1852	1.5550	54

TABLE 22
AVERAGE ACADEMIC YEAR EQUIVALENTS, LOS RIOS

Variable	Value	Label	Mean	Std Dev	Cases
For Entire Population			3.0394	1.4099	165
COHORTR	1	NO REMED	2.8243	1.4688	111
COHORTR	2	SOME REM	3.4815	1.1735	54

TABLE 23
AVERAGE LOS RIOS GPA, BY GENDER/ETHNICITY

Variable	Value	Label	Mean	Std Dev	Cases
For Entire Population			3.1807	.4441	164
GENDERN	1	MALE	3.1120	.4407	92
RETHNIC	1	American Indian	2.9775	.0625	2
RETHNIC	2	African-American	2.7646	.7579	6
RETHNIC	3	Mexican-American, Ch	2.9091	.3626	5
RETHNIC	6	Asian, Pacific Is	3.2188	.2684	24
RETHNIC	8	White	3.1380	.4723	51
RETHNIC	9	Unknown - Other	2.9800	.2002	4
GENDERN	2	FEMALE	3.2686	.4358	72
RETHNIC	2	African-American	2.8405	.4555	3
RETHNIC	3	Mexican-American, Ch	2.8862	.1753	5
RETHNIC	6	Asian, Pacific Is	3.4280	.3594	14
RETHNIC	8	White	3.3230	.4384	46
RETHNIC	9	Unknown - Other	2.8830	.2908	4

TABLE 24
AVERAGE LOS RIOS GPA, BY GENDER/AGE GROUP

Variable	Value	Label	Mean	Std Dev	Cases
For Entire Population			3.1807	.4441	164
GENDERN	1	MALE	3.1120	.4407	92
AGEGRP2	1	18 TO 20	3.0746	.4445	53
AGEGRP2	2	21 TO 24	3.1018	.3240	24
AGEGRP2	3	25 TO 29	3.2940	.6396	11
AGEGRP2	4	30 TO 39	3.1674	.3839	4
GENDERN	2	FEMALE	3.2686	.4358	72
AGEGRP2	1	18 TO 20	3.1858	.4382	42
AGEGRP2	2	21 TO 24	3.2507	.2965	12
AGEGRP2	3	25 TO 29	3.3889	.4773	12
AGEGRP2	4	30 TO 39	3.5673	.4041	3
AGEGRP2	5	40 & OVR	3.7185	.4875	3

TABLE 25
AVERAGE LOS RIOS GPA, BY COHORT/ETHNICITY

Variable	Value	Label	Mean	Std Dev	Cases
For Entire Population			3.1807	.4441	164
COHORTR	1	NO REMED	3.2272	.4039	110
RETHNIC	1	American Indian	2.9775	.0625	2
RETHNIC	2	African-American	3.2506	.5139	4
RETHNIC	3	Mexican-American, Ch	2.8113	.2387	7
RETHNIC	6	Asian, Pacific Is	3.3099	.3257	29
RETHNIC	8	White	3.2652	.4291	63
RETHNIC	9	Unknown - Other	2.9317	.2204	5
COHORTR	2	SOME REM	3.0860	.5075	54
RETHNIC	2	African-American	2.4213	.4945	5
RETHNIC	3	Mexican-American, Ch	3.0991	.2591	3
RETHNIC	6	Asian, Pacific Is	3.2506	.3019	9
RETHNIC	8	White	3.1527	.5203	34
RETHNIC	9	Unknown - Other	2.9312	.3150	3

TABLE 26
AVERAGE LOS RIOS GPA, BY COHORT/GENDER

Variable	Value	Label	Mean	Std Dev	Cases
For Entire Population			3.1807	.4441	164
COHORTR	1	NO REMED	3.2272	.4039	110
GENDERN	1	MALE	3.1978	.3847	63
GENDERN	2	FEMALE	3.2666	.4293	47
COHORTR	2	SOME REM	3.0860	.5075	54
GENDERN	1	MALE	2.9255	.5010	29
GENDERN	2	FEMALE	3.2722	.4568	25

TABLE 27
AVERAGE LOS RIOS GPA, BY COHORT/AGE GROUP

Variable	Value	Label	Mean	Std Dev	Cases
For Entire Population			3.1807	.4441	164
COHORTR	1	NO REMED	3.2272	.4039	110
AGEGRP2	1	18 TO 20	3.2221	.4125	68
AGEGRP2	2	21 TO 24	3.1221	.2877	23
AGEGRP2	3	25 TO 29	3.3715	.5039	14
AGEGRP2	4	30 TO 39	3.2416	.2357	3
AGEGRP2	5	40 & OVR	3.5778	.5971	2
COHORTR	2	SOME REM	3.0860	.5075	54
AGEGRP2	1	18 TO 20	2.8762	.4264	27
AGEGRP2	2	21 TO 24	3.2032	.3746	13
AGEGRP2	3	25 TO 29	3.2999	.6441	9
AGEGRP2	4	30 TO 39	3.4117	.5422	4
AGEGRP2	5	40 & OVR	4.0000	.0000	1

TABLE 28
GRADUATION STATUS AT LOS RIOS

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
LR AA/AS DEGREE	1	47	28.5	28.5	28.5
NO LRIOS DEGREE	9	118	71.5	71.5	100.0
	TOTAL	165	100.0	100.0	

TABLE 29
YEAR OF GRADUATION FROM LOS RIOS

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
YEAR	1982	14	8.5	8.5	8.5
YEAR	1983	30	18.2	18.2	26.7
YEAR	1984	2	1.2	1.2	27.9
YEAR	1985	1	.6	.6	28.5
NO DEGREE		118	71.5	71.5	100.0
	TOTAL	165	100.0	100.0	

TABLE 30
DEGREE MAJOR AT LOS RIOS

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
GENERAL ED./LIBERAL ARTS	1	11	23.4	23.4	23.4
MATH/PHYSICAL SCIENCE	2	19	40.4	40.4	63.8
SOCIAL SCIENCES	3	9	19.1	19.1	83.0
OCCUPATIONAL TECH.	7	2	4.3	4.3	87.2
OTHER	9	6	12.8	12.8	100.0
	TOTAL	47	100.0	100.0	

TABLE 31
LOS RIOS DEGREE STATUS BY GENDER

LRGRAD-> / GENDER	Count / Row Pct / Col Pct	LR AA/AS DEGREE 1	NO LRIOS DEGREE 9	Row Total
MALE	1	24 26.1 51.1	68 73.9 57.6	92 55.8
FEMALE	2	23 31.5 48.9	50 68.5 42.4	73 44.2
	Column Total	47 28.5	118 71.5	165 100.0

TABLE 32
LOS RIOS DEGREE STATUS BY ETHNICITY

LRGRAD-> / ETHNIC	Count / Row Pct / Col Pct	LR AA/AS DEGREE 1	NO LRIOS DEGREE 9	Row Total
American Indian	1		2 100.0 1.7	2 1.2
African-American	2	3 33.3 6.4	6 66.7 5.1	9 5.5
Mexican-American	3	4 40.0 8.5	6 60.0 5.1	10 6.1
Asian, Pacific I	5	8 21.1 17.0	30 78.9 25.4	38 23.0
White	8	30 30.6 63.8	68 69.4 57.6	98 59.4
Unknown - Other	9	2 25.0 4.3	6 75.0 5.1	8 4.8
	Column Total	47 28.5	118 71.5	165 100.0

TABLE 33
LOS RIOS DEGREE STATUS BY AGE GROUP

LRGRAD--> / AGE GROUP	Count / Row Pct / Col Pct	LR AA/AS DEGREE 1	NO LRIOS DEGREE 9	Row Total
18 TO 20	1	20 21.1 42.6	75 78.9 63.6	95 57.6
21 TO 24	2	15 41.7 31.9	21 58.3 17.8	36 21.8
25 TO 29	3	10 43.5 21.3	13 56.5 11.0	23 13.9
30 TO 39	4		8 100.0 6.8	8 4.8
40 & OVR	5	2 66.7 4.3	1 33.3 .8	3 1.8
	Column Total	47 28.5	118 71.5	165 100.0

TABLE 34
LOS RIOS DEGREE STATUS BY COHORTS

LRGRAD--> / COHORT	Count / Row Pct / Col Pct	LR AA/AS DEGREE 1	NO LRIOS DEGREE 9	Row Total
NO REMED	1	33 29.7 70.2	78 70.3 66.1	111 67.3
SOME REM	2	14 25.9 29.8	40 74.1 33.9	54 32.7
	Column Total	47 28.5	118 71.5	165 100.0

TABLE 35
FIRST QUARTER ATTENDED UCD, BY COHORTS

COHORT -> / FIRST QUARTER	Count / Row Pct / Col Pct	NO REMED 1	SOME REM 2	Row Total
Fall 83		92 69.7 82.9	40 30.3 74.1	132 80.0
Winter 84		10 71.4 9.0	4 28.6 7.4	14 8.5
Spring 84		9 47.4 8.1	10 52.6 18.5	19 11.5
	Column Total	111 67.3	54 32.7	165 100.0

TABLE 36
CLASS LEVEL AT ENTRY TO UCD, BY COHORTS

COHORT -> / CLASS LEVEL	Count / Row Pct / Col Pct	NO REMED 1	SOME REM 2	Row Total
1 Freshman		7 63.6 6.3	4 36.4 7.4	11 6.7
2 Sophomore		25 59.5 22.5	17 40.5 31.5	42 25.5
3 Junior		74 69.8 66.7	32 30.2 59.3	106 64.2
4 Senior		5 83.3 4.5	1 16.7 1.9	6 3.6
	Column Total	111 67.3	54 32.7	165 100.0

TABLE 37
AVERAGE UNITS COMPLETED AT UCD, BY COHORTS

Variable	Value	Label	Mean	Std Dev	Cases
For Entire Population			96.4424	34.7084	165
COHORTR	1	NO REMED	97.0090	34.3184	111
COHORTR	2	SOME REM	95.2778	35.7942	54

TABLE 38
TOTAL UNITS COMPLETED AT UCD

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
ZERO UNITS	1	1	.6	.6	.6
0.1 - 44.9 UNITS	2	17	10.3	10.3	10.9
45.0 - 83.9 UNITS	3	24	14.5	14.5	25.5
84.0 - 89.9 UNITS	4	18	10.9	10.9	36.4
90.0 - 104.9 UNITS	5	35	21.2	21.2	57.6
105.0 - 119.9 UNITS	6	31	18.8	18.8	76.4
120.0 - 134.9 UNITS	7	22	13.3	13.3	89.7
135.0 - 179.9 UNITS	8	17	10.3	10.3	100.0
	TOTAL	165	100.0	100.0	

TABLE 39
UNITS COMPLETED AT UCD, BY COHORTS

COHORT -> / UNITS COMPLETED	NO REMED (1)	SOME REM (2)	Row Total
ZERO UNITS (1)		1 100.0 1.9	1 .6
0.1 - 44.9 UN (2)	12 70.6 10.8	5 29.4 9.3	17 10.3
45.0 - 83.9 UN (3)	16 66.7 14.4	8 33.3 14.8	24 14.5
84.0 - 89.9 UN (4)	16 88.9 14.4	2 11.1 3.7	18 10.9
90.0 - 104.9 UN (5)	21 60.0 18.9	14 40.0 25.9	35 21.2
105.0 - 119.9 UN (6)	19 61.3 17.1	12 38.7 22.2	31 18.8
120.0 - 134.9 UN (7)	15 68.2 13.5	7 31.8 13.0	22 13.3
135.0 - 179.9 UN (8)	12 70.6 10.8	5 29.4 9.3	17 10.3
Column Total	111 67.3	54 32.7	165 100.0

TABLE 40
AVERAGE TERMS REGISTERED AT UCD, BY COHORTS

Variable	Value	Label	Mean	Std Dev	Cases
For Entire Population			7.8061	2.8411	165
COHORTR	1	NO REMED	7.6937	2.6209	111
COHORTR	2	SOME REM	8.0370	3.2619	54

TABLE 41
AVERAGE ACADEMIC YEAR EQUIVALENTS AT UCD, BY COHORT

Variable	Value	Label	Mean	Std Dev	Cases
For Entire Population			2.6020	.9470	165
COHORTR	1	NO REMED	2.5646	.8736	111
COHORTR	2	SOME REM	2.6790	1.0873	54

TABLE 42
AVERAGE ACADEMIC YEARS ELAPSED AT UCD, BY COHORT

Variable	Value	Label	Mean	Std Dev	Cases
For Entire Population			3.0545	1.2110	165
COHORTR	1	NO REMED	2.9640	1.1356	111
COHORTR	2	SOME REM	3.2407	1.3449	54

TABLE 43
AVERAGE UCD GPA, BY GENDER/ETHNICITY

Variable	Value	Label	Mean	Std Dev	Cases
For Entire Population			2.78757	.56504	164*
GENDERN	1	MALE	2.69621	.51290	91
RETHNIC	1	American Indian	2.69550	.03465	2
RETHNIC	2	African-American	2.28120	.91011	5
RETHNIC	3	Mexican-American, Ch	2.30580	.48159	5
RETHNIC	6	Asian, Pacific Is	2.67367	.39611	24
RETHNIC	8	White	2.79298	.51121	51
RETHNIC	9	Unknown - Other	2.60475	.45151	4
GENDERN	2	FEMALE	2.90145	.60848	73
RETHNIC	2	African-American	2.40233	.26987	3
RETHNIC	3	Mexican-American, Ch	2.44940	.47818	5
RETHNIC	6	Asian, Pacific Is	2.97886	.62127	14
RETHNIC	8	White	2.97809	.62835	47
RETHNIC	9	Unknown - Other	2.66950	.15688	4

*Missing Cases = 1 or .6 PCT.

TABLE 44
AVERAGE UCD GPA, BY GENDER/AGE GROUP

Variable	Value	Label	Mean	Std Dev	Cases
For Entire Population			2.78757	.56504	164*
GENDERN	1	MALE	2.69621	.51290	91
AGEGRP2	1	18 TO 20	2.70032	.50406	53
AGEGRP2	2	21 TO 24	2.65579	.50163	24
AGEGRP2	3	25 TO 29	2.83420	.63438	10
AGEGRP2	4	30 TO 39	2.53925	.49177	4
GENDERN	2	FEMALE	2.90145	.60848	73
AGEGRP2	1	18 TO 20	2.81405	.56481	42
AGEGRP2	2	21 TO 24	2.68517	.51223	12
AGEGRP2	3	25 TO 29	3.15700	.74273	12
AGEGRP2	4	30 TO 39	3.26375	.40404	4
AGEGRP2	5	40 & OVR	3.48500	.67901	3

TABLE 45
AVERAGE UCD GPA, BY COHORT/GENDER/ETHNICITY/AGE GROUP

Variable	Value	Label	Mean	Std Dev	Cases
For Entire Population			2.78757	.56504	164*
COHORTR	1	NO REMED	2.83348	.54340	111
GENDER	F	Female	2.93315	.55446	48
RETHNIC	2	African-American	2.70100	.00000	1
AGEGRP2	5	40 & OVR	2.70100	.00000	1
RETHNIC	3	Mexican-American, Ch	2.37100	.51371	4
AGEGRP2	1	18 TO 20	2.76100	.02970	2
AGEGRP2	2	21 TO 24	2.28300	.00000	1
AGEGRP2	3	25 TO 29	1.67900	.00000	1
RETHNIC	6	Asian, Pacific Is	3.08158	.52186	12
AGEGRP2	1	18 TO 20	3.10588	.47887	8
AGEGRP2	2	21 TO 24	2.99200	.04243	2
AGEGRP2	3	25 TO 29	3.07400	1.16955	2
RETHNIC	8	White	2.98152	.55818	29
AGEGRP2	1	18 TO 20	2.87930	.53543	20
AGEGRP2	2	21 TO 24	2.79400	.51723	4
AGEGRP2	3	25 TO 29	3.73100	.35780	2
AGEGRP2	4	30 TO 39	3.18550	.05020	2
AGEGRP2	5	40 & OVR	3.86900	.00000	1
RETHNIC	9	Unknown - Other	2.58150	.20011	2
AGEGRP2	1	18 TO 20	2.44000	.00000	1
AGEGRP2	3	25 TO 29	2.72300	.00000	1
GENDER	M	Male	2.75754	.52658	63
RETHNIC	1	American Indian	2.69550	.03465	2
AGEGRP2	1	18 TO 20	2.67100	.00000	1
AGEGRP2	2	21 TO 24	2.72000	.00000	1
RETHNIC	2	African-American	2.26400	1.26840	3
AGEGRP2	1	18 TO 20	1.99300	.00000	1
AGEGRP2	2	21 TO 24	1.15300	.00000	1
AGEGRP2	3	25 TO 29	3.64600	.00000	1

*Missing Cases = 1 OR .6 PCT.
(Table continued on next page)

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Variable	Value	Label	Mean	Std Dev	Cases
RETHNIC	3	Mexican-American, Ch	2.17933	.56159	3
AGEGRP2	1	18 TO 20	1.88900	.35355	2
AGEGRP2	2	21 TO 24	2.76000	.00000	1
RETHNIC	6	Asian, Pacific Is	2.71953	.42436	17
AGEGRP2	1	18 TO 20	2.71908	.46897	13
AGEGRP2	2	21 TO 24	2.86450	.39386	2
AGEGRP2	3	25 TO 29	2.53000	.00000	1
AGEGRP2	4	30 TO 39	2.62500	.00000	1
RETHNIC	8	White	2.86574	.49216	35
AGEGRP2	1	18 TO 20	3.02661	.47125	18
AGEGRP2	2	21 TO 24	2.68250	.41289	10
AGEGRP2	3	25 TO 29	2.71433	.62656	6
AGEGRP2	4	30 TO 39	2.71100	.00000	1
RETHNIC	9	Unknown - Other	2.82367	.13507	3
AGEGRP2	1	18 TO 20	2.74650	.02758	2
AGEGRP2	2	21 TO 24	2.97800	.00000	1
COHORTR	2	SOME REM	2.69142	.60185	53
GENDER F		Female	2.84060	.70912	25
RETHNIC	2	African-American	2.25300	.10889	2
AGEGRP2	1	18 TO 20	2.25300	.10889	2
RETHNIC	3	Mexican-American, Ch	2.76300	.00000	1
AGEGRP2	1	18 TO 20	2.76300	.00000	1
RETHNIC	6	Asian, Pacific Is	2.36250	1.06561	2
AGEGRP2	2	21 TO 24	2.36250	1.06561	2
RETHNIC	8	White	2.97256	.74507	18
AGEGRP2	1	18 TO 20	2.54371	.81137	7
AGEGRP2	2	21 TO 24	2.62950	.56781	2
AGEGRP2	3	25 TO 29	3.31200	.52584	6
AGEGRP2	4	30 TO 39	3.34200	.68024	2
AGEGRP2	5	40 & OVR	3.88500	.00000	1
RETHNIC	9	Unknown - Other	2.75750	.05303	2
AGEGRP2	1	18 TO 20	2.72000	.00000	1
AGEGRP2	2	21 TO 24	2.79500	.00000	1
GENDER M		Male	2.55821	.46003	28
RETHNIC	2	African-American	2.30700	.30547	2
AGEGRP2	1	18 TO 20	2.30700	.30547	2
RETHNIC	3	Mexican-American, Ch	2.49550	.42073	2
AGEGRP2	1	18 TO 20	2.79300	.00000	1
AGEGRP2	2	21 TO 24	2.19800	.00000	1
RETHNIC	6	Asian, Pacific Is	2.56229	.31753	7
AGEGRP2	1	18 TO 20	2.43300	.31215	3
AGEGRP2	2	21 TO 24	2.65925	.32779	4
RETHNIC	8	White	2.63381	.53171	16
AGEGRP2	1	18 TO 20	2.52233	.39642	9
AGEGRP2	2	21 TO 24	2.91300	.66942	3
AGEGRP2	3	25 TO 29	2.94000	.89378	2
AGEGRP2	4	30 TO 39	2.41050	.80964	2
RETHNIC	9	Unknown - Other	1.94800	.00000	1
AGEGRP2	1	18 TO 20	1.94800	.00000	1

TABLE 46
AVERAGE UCD GPA, BY COHORT/AGE GROUP

Variable	Value	Label	Mean	Std Dev	Cases
For Entire Population			2.78757	.56504	164*
COHORTR	1	NO REMED	2.83348	.54340	111
AGEGRP2	1	18 TO 20	2.85525	.51450	68
AGEGRP2	2	21 TO 24	2.67861	.49519	23
AGEGRP2	3	25 TO 29	2.89100	.75047	14
AGEGRP2	4	30 TO 39	2.92675	.30223	4
AGEGRP2	5	40 & OVR	3.28500	.82590	2
COHORTR	2	SOME REM	2.69142	.60185	53
AGEGRP2	1	18 TO 20	2.48704	.48984	27
AGEGRP2	2	21 TO 24	2.64254	.52242	13
AGEGRP2	3	25 TO 29	3.21900	.58419	8
AGEGRP2	4	30 TO 39	2.87625	.81362	4
AGEGRP2	5	40 & OVR	3.88500	.00000	1

*Missing Cases = 1 OR .6 PCT.

TABLE 47
YEAR UCD DEGREE WAS GRANTED

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
YEAR	84-85	28	17.0	17.0	17.0
YEAR	85-86	65	39.4	39.4	56.4
YEAR	86-87	20	12.1	12.1	68.5
YEAR	87-88	17	10.3	10.3	78.8
YEAR	88-89	2	1.2	1.2	80.0
YEAR	89-90	1	.6	.6	80.6
NO DEGREE		32	19.4	19.4	100.0
	TOTAL	165	100.0	100.0	

TABLE 48
COLLEGE GRANTING UCD DEGREE

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Agric & Env Sci	AG	37	27.8	27.8	27.8
Engineering	EN	22	16.5	16.5	44.4
Letters & Science	LS	74	55.6	55.6	100.0
	TOTAL	133	100.0	100.0	

TABLE 49
UCD DEGREE STATUS BY GENDER

GRADUATE->	Count / Row Pct / Col Pct	Yes 1	No 2	Row Total
GENDER				
1 MALE	1	76 82.6 57.1	16 17.4 50.0	92 55.8
2 FEMALE	2	57 78.1 42.9	16 21.9 50.0	73 44.2
	Column Total	133 80.6	32 19.4	165 100.0

TABLE 50
UCD DEGREE STATUS BY ETHNICITY

GRADUATE->	Count / Row Pct / Col Pct	Yes 1	No 2	Row Total
ETHNIC				
1 American Indian	1	2 100.0 1.5		2 1.2
2 African-American	2	4 44.4 3.0	5 55.6 15.6	9 5.5
3 Mexican-American	3	7 70.0 5.3	3 30.0 9.4	10 6.1
6 Asian, Pacific I	6	31 81.6 23.3	7 18.4 21.9	38 23.0
8 White	8	84 85.7 63.2	14 14.3 43.8	98 59.4
9 Unknown - Other	9	5 62.5 3.8	3 37.5 9.4	8 4.8
	Column Total	133 80.6	32 19.4	165 100.0

TADLE 51
UCD DEGREE STATUS BY AGE GROUPS

GRADUATE-> / AGE GROUPS	Count / Row Pct / Col Pct	Yes 1	No 2	Row Total
18 TO 20	1	76 80.0 57.1	19 20.0 59.4	95 57.6
21 TO 24	2	32 88.9 24.1	4 11.1 12.5	36 21.8
25 TO 29	3	18 78.3 13.5	5 21.7 15.6	23 13.9
30 TO 39	4	4 50.0 3.0	4 50.0 12.5	8 4.8
40 & OVR	5	3 100.0 2.3		3 1.8
	Column Total	133 80.6	32 19.4	165 100.0

TABLE 52
LAST CLASS LEVEL, BY COHORTS

COHORT -> / LAST CLASS LEVEL	Count / Row Pct / Col Pct	NO REMED 1	SOME REM 2	Row Total
Freshman	1	1 50.0 .9	1 50.0 1.9	2 1.2
Sophomore	2	1 33.3 .9	2 66.7 3.7	3 1.8
Junior	3	9 75.0 8.1	3 25.0 5.6	12 7.3
Senior	4	7 46.7 6.3	8 53.3 14.8	15 9.1
Graduated	6	93 69.9 83.8	40 30.1 74.1	133 80.6
	Column Total	111 67.3	54 32.7	165 100.0

APPENDIX B: CSU Sacramento Cohort Tables

(Note: These tables of frequencies and cross-tabulations are provided for reference. However, we urge caution when comparing groups since some cross-tabulations produced sub-groups too small for definitive analysis.)

TABLE 1
CSUS SURVEY POPULATION
Transfer Units Earned in Los Rios/Prior School Credited

UNITS COMPLETED -> / SCHOOL CREDITED	Count / Row Pct / Col Pct	0.1 TO 29.9 UNIT 2	30.0 TO 55.9 UNI 3	56.0 TO 60.9 UNI 4	61.0 TO 70.9 UNI 5	71.0 OR MORE UNI 6	Row Total
1 CREDITED TO L.R.		345 21.8 100.0	481 30.4 100.0	202 12.8 92.7	327 20.7 96.2	227 14.3 95.8	1582 97.6
2 CREDITED TO UC				1 20.0 .5	2 40.0 .6	2 40.0 .8	5 .3
3 CREDITED TO CSU				8 34.8 3.7	9 39.1 2.6	6 26.1 2.5	23 1.4
4 CR TO OTHER CC				4 80.0 1.8		1 20.0 .4	5 .3
6 OUT OF STATE				2 50.0 .9	2 50.0 .6		4 .2
7 FOREIGN COUNTRY				1 50.0 .5		1 50.0 .4	2 .1
Column Total		345 21.3	481 29.7	218 13.4	340 21.0	237 14.6	1621 100.0

TABLE 2
GENDER FREQUENCIES

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
MALE	1	802	49.5	49.5	49.5
FEMALE	2	819	50.5	50.5	100.0
	TOTAL	1621	100.0	100.0	

TABLE 3
ETHNICITY FREQUENCIES

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
American Indian	1	23	1.4	1.4	1.4
African-American	2	111	6.8	6.8	8.3
Mexican-American	3	117	7.2	7.2	15.5
Asian/Pac.Island	6	219	13.5	13.5	29.0
White	8	1034	63.8	63.8	92.8
Unknown/Other	9	117	7.2	7.2	100.0
	TOTAL	1621	100.0	100.0	

TABLE 4
AGE GROUP FREQUENCIES

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
18 TO 20	1	592	36.5	36.5	36.5
21 TO 24	2	548	33.8	33.8	70.3
25 TO 29	3	245	15.1	15.1	85.4
30 TO 39	4	160	9.9	9.9	95.3
40 & OVR	5	76	4.7	4.7	100.0
	TOTAL	1621	100.0	100.0	

TABLE 5
AVERAGE AGE BY GENDER

Variable	Value	Label	Mean	Std Dev	Cases
For Entire Population			24.0697	6.8773	1621
GENDERN	1	MALE	23.1808	5.3517	802
GENDERN	2	FEMALE	24.9402	8.0057	819

TABLE 6
AVERAGE AGE BY ETHNICITY

Variable	Value	Label	Mean	Std Dev	Cases
For Entire Population			24.0697	6.8773	1621
RETHNIC	1	American Indian	27.4348	7.7859	23
RETHNIC	2	African-American	26.3333	7.7967	111
RETHNIC	3	Mexican-American	23.3846	5.7293	117
RETHNIC	6	Asian/Pac.Island	22.0913	5.0357	219
RETHNIC	8	White	24.1973	7.0345	1034
RETHNIC	9	Unknown/Other	24.5214	7.4076	117

TABLE 7
NON-REMEDIAL/REMEDIAL COHORTS

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
NO REMED	1	847	52.3	52.3	52.3
SOME REM	2	774	47.7	47.7	100.0
	TOTAL	1621	100.0	100.0	

TABLE 8
NON-REMEDIAL/REMEDIAL COHORTS
Types of Remedial Courses Taken

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
NONE	1	847	52.3	52.3	52.3
REMEDIAL ENGISH	2	336	20.7	20.7	73.0
REMEDIAL MATH	3	236	14.6	14.6	87.5
BOTH ENGLISH & MATH	4	202	12.5	12.5	100.0
	TOTAL	1621	100.0	100.0	

TABLE 9
GENDER BY COHORTS

COHORT -> / GENDER	Count / Row Pct / Col Pct	NO REMED 1	SOME REM 2	Row Total
MALE	1	419 52.2 49.5	383 47.8 49.5	802 49.5
FEMALE	2	428 52.3 50.5	391 47.7 50.5	819 50.5
	Column Total	847 52.3	774 47.7	1621 100.0

TABLE 10
ETHNICITY BY COHORTS

COHORT -> / ETHNIC	Count / Row Pct / Col Pct	NO REMED 1	SOME REM 2	Row Total
American Indian	1	10 43.5 1.2	13 56.5 1.7	23 1.4
African-American	2	46 41.4 5.4	65 58.6 8.4	111 6.8
Mexican-American	3	45 38.5 5.3	72 61.5 9.3	117 7.2
Asian/Pac.Island	6	140 63.9 16.5	79 36.1 10.2	219 13.5
White	8	536 51.8 63.3	498 48.2 64.3	1034 63.8
Unknown/Other	9	70 59.8 8.3	47 40.2 6.1	117 7.2
	Column Total	847 52.3	774 47.7	1621 100.0

TABLE 11
AVERAGE AGE BY COHORTS

Variable	Value	Label	Mean	Std Dev	Cases
For Entire Population			24.0697	6.8773	1621
COHORTR	1	NO REMED	23.7627	6.6717	847
COHORTR	2	SOME REM	24.4057	7.0845	774

TABLE 12
AGE GROUPS BY COHORTS

COHORT -> / AGE GROUP	Count / Row Pct / Col Pct	NO REMED 1	SOME REM 2	Row Total
18 TO 20	1	326 55.1 38.5	266 44.9 34.4	592 36.5
21 TO 24	2	284 51.8 33.5	264 48.2 34.1	548 33.8
25 TO 29	3	122 49.8 14.4	123 50.2 15.9	245 15.1
30 TO 39	4	82 51.3 9.7	78 48.8 10.1	160 9.9
40 & OVR	5	33 43.4 3.9	43 56.6 5.6	76 4.7
	Column Total	847 52.3	774 47.7	1621 100.0

TABLE 13
YEAR OF ENTRY IN LOS RIOS BY COHORTS

COHORT -> / YEAR ENTERED LR	NO REMED (1)	SOME REM (2)	Row Total
70-71	3 50.0 .4	3 50.0 .4	6 .4
71-72	1 25.0 .1	3 75.0 .4	4 .2
72-73	3 60.0 .4	2 40.0 .3	5 .3
73-74	7 41.2 .8	10 58.8 1.3	17 1.0
74-75	10 37.0 1.2	17 63.0 2.2	27 1.7
75-76	14 46.7 1.7	16 53.3 2.1	30 1.9
76-77	23 38.3 2.7	37 61.7 4.8	60 3.7
77-78	27 32.9 3.2	55 67.1 7.1	82 5.1
78-79	61 44.5 7.2	76 55.5 9.8	137 8.5
79-80	84 39.4 9.9	129 60.6 16.7	213 13.1
80-81	190 45.7 22.4	226 54.3 29.2	416 25.7
81-82	222 58.7 26.2	156 41.3 20.2	378 23.3
82-83	202 82.1 23.8	44 17.9 5.7	246 15.2
Column Total	847 52.3	774 47.7	1621 100.0

TABLE 14
TOTAL UNITS COMPLETED IN LOS RIOS

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
0.1 TO 29.9 UNITS	2	287	17.7	17.7	17.7
30.0 TO 55.9 UNITS	3	309	19.1	19.1	36.8
56.0 TO 60.9 UNITS	4	115	7.1	7.1	43.9
61.0 TO 70.9 UNITS	5	359	22.1	22.1	66.0
71.0 OR MORE UNITS	6	551	34.0	34.0	100.0
	TOTAL	1621	100.0	100.0	

TABLE 15
REMEDIAL UNITS COMPLETED IN LOS RIOS

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
ZERO UNITS	1	38	2.3	2.3	2.3
0.1 TO 2.9 UNITS	2	45	2.8	2.8	5.1
3.0 TO 5.9 UNITS	3	453	27.9	27.9	33.1
6.0 TO 8.9 UNITS	4	160	9.9	9.9	42.9
9.0 TO 11.9 UNITS	5	56	3.5	3.5	46.4
12.0 TO 14.9 UNITS	6	12	.7	.7	47.1
15.0 TO 17.9 UNITS	7	6	.4	.4	47.5
18.0 TO 20.9 UNITS	8	2	.1	.1	47.6
21.0 TO 23.9 UNITS	9	1	.1	.1	47.7
24.0 TO 26.9 UNITS	10	1	.1	.1	47.7
COHORT 1 (No Remedial Units)	20	847	52.3	52.3	100.0
	TOTAL	1621	100.0	100.0	

TABLE 16
TRANSFER UNITS COMPLETED IN LOS RIOS

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
0.1 TO 29.9 UNITS	2	345	21.3	21.3	21.3
30.0 TO 55.9 UNITS	3	481	29.7	29.7	51.0
56.0 TO 60.9 UNITS	4	218	13.4	13.4	64.4
61.0 TO 70.9 UNITS	5	340	21.0	21.0	85.4
71.0 OR MORE UNITS	6	237	14.6	14.6	100.0
	TOTAL	1621	100.0	100.0	

TABLE 17
TOTAL UNITS COMPLETED IN LOS RIOS BY COHORTS

COHORT -> / UNITS COMPLETED	Count / Row Pct / Col Pct	NO REMED 1	SOME REM 2	Row Total
0.1 TO 29.9 UNIT	2	228	59	287
		79.4	20.6	17.7
		26.9	7.6	
30.0 TO 55.9 UNI	3	195	114	309
		63.1	36.9	19.1
		23.0	14.7	
56.0 TO 60.9 UNI	4	64	51	115
		55.7	44.3	7.1
		7.6	6.6	
61.0 TO 70.9 UNI	5	166	193	359
		46.2	53.8	22.1
		19.6	24.9	
71.0 OR MORE UNI	6	194	357	551
		35.2	64.8	34.0
		22.9	46.1	
	Column Total	847	774	1621
		52.3	47.7	100.0

TABLE 18
AVERAGE TRANSFER UNITS COMPLETED, BY COHORTS

Variable	Value	Label	Mean	Std Dev	Cases
For Entire Population			50.0093	22.0637	1621
COHORTR	1	NO REMED	44.7863	23.6370	847
COHORTR	2	SOME REM	55.7249	18.6048	774

TABLE 19
TRANSFER UNITS COMPLETED, BY COHORTS

COHORT -> / TRANSFER UNITS	NO REMED (1)	SOME REM (2)	Row Total
0.1 TO 29.9 UNIT (2)	260 / 75.4 / 30.7	85 / 24.6 / 11.0	345 / 21.3
30.0 TO 55.9 UNI (3)	245 / 50.9 / 28.9	236 / 49.1 / 30.5	481 / 29.7
56.0 TO 60.9 UNI (4)	93 / 42.7 / 11.0	125 / 57.3 / 16.1	218 / 13.4
61.0 TO 70.9 UNI (5)	139 / 40.9 / 16.4	201 / 59.1 / 26.0	340 / 21.0
71.0 OR MORE UNI (6)	110 / 46.4 / 13.0	127 / 53.6 / 16.4	237 / 14.6
Column Total	847 / 52.3	774 / 47.7	1621 / 100.0

TABLE 20
AVERAGE NUMBER SEMESTERS ATTENDED LOS RIOS

Variable	Value	Label	Mean	Std Dev	Cases
For Entire Population			7.0265	3.5427	1621
COHORTR	1	NO REMED	5.9835	3.3297	847
COHORTR	2	SOME REM	8.1680	3.4164	774

TABLE 21
AVERAGE NUMBER YEARS ELAPSED, LOS RIOS

Variable	Value	Label	Mean	Std Dev	Cases
For Entire Population			3.4133	2.1290	1621
COHORTR	1	NO REMED	2.9941	2.0614	847
COHORTR	2	SOME REM	3.8721	2.1084	774

TABLE 22
AVERAGE ACADEMIC YEAR EQUIVALENTS, LOS RIOS

Variable	Value	Label	Mean	Std Dev	Cases
For Entire Population			3.5133	1.7713	1621
COHORTR	1	NO REMED	2.9917	1.6649	847
COHORTR	2	SOME REM	4.0840	1.7082	774

TABLE 23
AVERAGE LOS RIOS GPA, BY GENDER/ETHNICITY

Variable	Value	Label	Mean	Std Dev	Cases
For Entire Population			**2.9478**	**.5756**	**1618***
GENDERN	1	MALE	2.8323	.5407	802
RETHNIC	1	American Indian	2.7794	.3926	10
RETHNIC	2	African-American	2.5083	.5166	50
RETHNIC	3	Mexican-American	2.6295	.5974	53
RETHNIC	6	Asian/Pac.Island	2.9408	.4952	129
RETHNIC	8	White	2.8746	.5427	488
RETHNIC	9	Unknown/Other	2.7322	.4707	72
GENDERN	2	FEMALE	3.0614	.5866	816
RETHNIC	1	American Indian	3.0180	.6057	13
RETHNIC	2	African-American	2.5709	.6798	61
RETHNIC	3	Mexican-American	2.8717	.5508	64
RETHNIC	6	Asian/Pac.Island	3.0974	.5234	90
RETHNIC	8	White	3.1353	.5494	544
RETHNIC	9	Unknown/Other	3.0432	.6947	44

TABLE 24
AVERAGE LOS RIOS GPA, BY GENDER/AGE GROUP

Variable	Value	Label	Mean	Std Dev	Cases
For Entire Population			**2.9478**	**.5756**	**1618***
GENDERN	1	MALE	2.8323	.5407	802
AGEGRP2	1	18 TO 20	2.8099	.4936	286
AGEGRP2	2	21 TO 24	2.7628	.5541	317
AGEGRP2	3	25 TO 29	2.9791	.5570	132
AGEGRP2	4	30 TO 39	2.9301	.5735	48
AGEGRP2	5	40 & OVR	3.0608	.5610	19
GENDERN	2	FEMALE	3.0614	.5866	816
AGEGRP2	1	18 TO 20	2.9440	.5377	306
AGEGRP2	2	21 TO 24	2.9842	.5772	231
AGEGRP2	3	25 TO 29	3.1446	.6414	112
AGEGRP2	4	30 TO 39	3.3238	.5966	110
AGEGRP2	5	40 & OVR	3.3348	.4803	57

TABLE 25
AVERAGE LOS RIOS GPA, BY COHORT/ETHNICITY

Variable	Value	Label	Mean	Std Dev	Cases
For Entire Population			**2.9478**	**.5756**	**1618***
COHORTR	1	NO REMED	3.0206	.6012	845
RETHNIC	1	American Indian	2.9281	.5290	10
RETHNIC	2	African-American	2.5095	.6328	46
RETHNIC	3	Mexican-American	2.7664	.6941	45
RETHNIC	6	Asian/Pac.Island	3.0768	.5102	140
RETHNIC	8	White	3.0882	.5934	534
RETHNIC	9	Unknown/Other	2.9050	.5462	70
COHORTR	2	SOME REM	2.8663	.5355	773
RETHNIC	1	American Indian	2.9036	.5469	13
RETHNIC	2	African-American	2.5662	.5969	65
RETHNIC	3	Mexican-American	2.7592	.5060	72
RETHNIC	6	Asian/Pac.Island	2.8782	.4921	79
RETHNIC	8	White	2.9304	.5129	498
RETHNIC	9	Unknown/Other	2.7668	.6327	46

*Total Cases = 1621 (Missing Cases = 3 or .2 PCT.)

TABLE 26
AVERAGE LOS RIOS GPA, BY COHORT/GENDER

Variable	Value	Label	Mean	Std Dev	Cases
For Entire Population			**2.9478**	**.5756**	**1618***
COHORTR	1	NO REMED	3.0206	.6012	845
GENDERN	1	MALE	2.8850	.5957	419
GENDERN	2	FEMALE	3.1540	.5768	426
COHORTR	2	SOME REM	2.8683	.5355	773
GENDERN	1	MALE	2.7746	.4673	383
GENDERN	2	FEMALE	2.9603	.5811	390

TABLE 27
AVERAGE LOS RIOS GPA, BY COHORT/AGE GROUP

Variable	Value	Label	Mean	Std Dev	Cases
For Entire Population			2.9478	.5756	1618
COHORTR	1	NO REMED	3.0206	.6012	845
AGEGRP2	1	18 TO 20	2.9774	.5258	326
AGEGRP2	2	21 TO 24	2.9070	.6366	284
AGEGRP2	3	25 TO 29	3.1486	.6275	122
AGEGRP2	4	30 TO 39	3.2625	.5811	80
AGEGRP2	5	40 & OVR	3.3647	.5945	33
COHORTR	2	SOME REM	2.8683	.5355	773
AGEGRP2	1	18 TO 20	2.7589	.4892	266
AGEGRP2	2	21 TO 24	2.8014	.4933	264
AGEGRP2	3	25 TO 29	2.9615	.5617	122
AGEGRP2	4	30 TO 39	3.1443	.6467	78
AGEGRP2	5	40 & OVR	3.1908	.4304	43

*Total Cases = 1621 (Missing Cases = 3 or .2 PCT.)

TABLE 28
GRADUATION STATUS AT LOS RIOS

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
LR AA/AS DEGREE	1	710	43.8	43.8	43.8
NO LRIOS DEGREE	9	911	56.2	56.2	100.0
	TOTAL	1621	100.0	100.0	

TABLE 29
YEAR OF GRADUATION FROM LOS RIOS

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
YEAR	1974	1	.1	.1	.1
YEAR	1975	1	.1	.1	.1
YEAR	1976	4	.2	.2	.4
YEAR	1977	1	.1	.1	.4
YEAR	1978	6	.4	.4	.8
YEAR	1979	5	.3	.3	1.1
YEAR	1980	19	1.2	1.2	2.3
YEAR	1981	31	1.9	1.9	4.2
YEAR	1982	105	6.5	6.5	10.7
YEAR	1983	440	27.1	27.1	37.8
YEAR	1984	44	2.7	2.7	40.5
YEAR	1985	25	1.5	1.5	42.1
YEAR	1986	11	.7	.7	42.8
YEAR	1987	8	.5	.5	43.2
YEAR	1988	4	.2	.2	43.5
YEAR	1989	3	.2	.2	43.7
YEAR	1990	2	.1	.1	43.8
NO DEGREE		911	56.2	56.2	100.0
	TOTAL	1621	100.0	100.0	

TABLE 30
DEGREE MAJOR AT LOS RIOS

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
GENERAL ED./LIBERAL ARTS	1	223	31.4	31.4	31.4
BUSINESS FIELDS	4	184	25.9	25.9	57.3
MATH/PHYSICAL SCIENCE	2	93	13.1	13.1	70.4
SOCIAL SCIENCES	3	79	11.1	11.1	81.5
OCCUPATIONAL TECHNOLOGIES	7	71	10.0	10.0	91.5
HOME ECONOMICS FIELDS	6	23	3.2	3.2	94.7
HEALTH FIELDS	5	8	1.1	1.1	95.8
OTHER	99	29	4.1	4.1	99.9
	TOTAL	710	100.0	100.0	

TABLE 31
LOS RIOS DEGREE STATUS BY GENDER

LRGRAD->	Count / Row Pct / Col Pct	LR AA/AS DEGREE 1	NO LRIOS DEGREE 9	Row Total
GENDER				
MALE	1	318	484	802
		39.7	60.3	49.5
		44.8	53.1	
FEMALE	2	392	427	819
		47.9	52.1	50.5
		55.2	46.9	
	Column Total	710	911	1621
		43.8	56.2	100.0

TABLE 32
LOS RIOS DEGREE STATUS BY ETHNICITY

LRGRAD-> / ETHNICITY	Count / Row Pct / Col Pct	LR AA/AS DEGREE 1	NO LRIOS DEGREE 9	Row Total
American Indian	1	11 47.8 1.5	12 52.2 1.3	23 1.4
African-American	2	62 55.9 8.7	49 44.1 5.4	111 6.8
Mexican-American	3	54 46.2 7.6	63 53.8 6.9	117 7.2
Asian/Pac.Island	6	86 39.3 12.1	133 60.7 14.6	219 13.5
White	8	452 43.7 63.7	582 56.3 63.9	1034 63.8
Unknown/Other	9	45 38.5 6.3	72 61.5 7.9	117 7.2
	Column Total	710 43.8	911 56.2	1621 100.0

TABLE 33
LOS RIOS DEGREE STATUS BY AGE GROUP

LRGRAD-> / AGE GROUP	Count / Row Pct / Col Pct	LR AA/AS DEGREE 1	NO LRIOS DEGREE 9	Row Total
18 TO 20	1	218 36.8 30.7	374 63.2 41.1	592 36.5
21 TO 24	2	242 44.2 34.1	306 55.8 33.6	548 33.8
25 TO 29	3	125 51.0 17.6	120 49.0 13.2	245 15.1
30 TO 39	4	77 48.1 10.8	83 51.9 9.1	160 9.9
40 & OVR	5	48 63.2 6.8	28 36.8 3.1	76 4.7
	Column Total	710 43.8	911 56.2	1621 100.0

TABLE 34
LOS RIOS DEGREE STATUS BY COHORTS

LRGRAD-> / COHORT	Count / Row Pct / Col Pct	LR AA/AS DEGREE 1	NO LRIOS DEGREE 9	Row Total
NO REMED	1	297 35.1 41.8	550 64.9 60.4	847 52.3
SOME REM	2	413 53.4 58.2	361 46.6 39.6	774 47.7
	Column Total	710 43.8	911 56.2	1621 100.0

TABLE 35
FIRST SEMESTER ATTENDED CSUS, BY COHORTS

COHORT -> / FIRST SEMESTER	Count / Row Pct / Col Pct	NO REMED 1	SOME REM 2	Row Total
FALL 83		521 53.3 61.5	456 46.7 58.9	977 60.3
SPRING 84		326 50.6 38.5	318 49.4 41.1	644 39.7
	Column Total	847 52.3	774 47.7	1621 100.0

TABLE 36
CLASS LEVEL AT ENTRY TO CSUS, BY COHORTS

[Data not available for this draft; will be forthcoming.]

TABLE 37
AVERAGE UNITS COMPLETED AT CSUS, BY COHORTS

Variable	Value	Label	Mean	Std Dev	Cases
For Entire Population			44.7452	31.9195	1621
COHORTR	1	NO REMED	46.7887	32.1253	847
COHORTR	2	SOME REM	42.5090	31.5620	774

TABLE 38
TOTAL UNITS COMPLETED AT CSUS

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
ZERO UNITS	1	129	8.0	8.0	8.0
0.1 TO 2.9 UNITS	2	8	.5	.5	8.5
3.0 TO 5.9 UNITS	3	73	4.5	4.5	13.0
6.0 TO 8.9 UNITS	4	87	5.4	5.4	18.3
9.0 TO 11.9 UNITS	5	52	3.2	3.2	21.5
12.0 TO 14.9 UNITS	6	66	4.1	4.1	25.6
15.0 TO 17.9 UNITS	7	37	2.3	2.3	27.9
18.0 TO 20.9 UNITS	8	43	2.7	2.7	30.5
21.0 TO 23.9 UNITS	9	44	2.7	2.7	33.3
24.0 TO 26.9 UNITS	10	37	2.3	2.3	35.5
27.0 TO 29.9 UNITS	11	35	2.2	2.2	37.7
30.0 TO 35.9 UNITS	12	63	3.9	3.9	41.6
36.0 TO 45.9 UNITS	13	106	6.5	6.5	48.1
46.0 TO 55.9 UNITS	14	130	8.0	8.0	56.1
56.0 TO 60.9 UNITS	15	134	8.3	8.3	64.4
61.0 TO 70.9 UNITS	16	243	15.0	15.0	79.4
71.0 TO 80.9 UNITS	17	144	8.9	8.9	88.3
81.0 TO 90.9 UNITS	18	80	4.9	4.9	93.2
91.0 OR + UNITS	19	110	6.8	6.8	100.0
	TOTAL	1621	100.0	100.0	

TABLE 39
UNITS COMPLETED AT CSUS, BY COHORT

COHORT → / UNITS COMPLETED	NO REMED (1)	SOME REM (2)	Row Total
ZERO UNITS (1)	56 43.4 6.6	73 56.6 9.4	129 8.0
0.1 TO 2.9 UNI (2)	7 87.5 .8	1 12.5 .1	8 .5
3.0 TO 5.9 UNI (3)	34 46.6 4.0	39 53.4 5.0	73 4.5
6.0 TO 8.9 UNI (4)	35 40.2 4.1	52 59.8 6.7	87 5.4
9.0 TO 11.9 UNI (5)	24 46.2 2.8	28 53.8 3.6	52 3.2
12.0 TO 14.9 UNI (6)	35 53.0 4.1	31 47.0 4.0	66 4.1
15.0 TO 17.9 UNI (7)	15 40.5 1.8	22 59.5 2.8	37 2.3
18.0 TO 20.9 UNI (8)	25 58.1 3.0	18 41.9 2.3	43 2.7
21.0 TO 23.9 UNI (9)	24 54.5 2.8	20 45.5 2.6	44 2.7
24.0 TO 26.9 UNI (10)	22 59.5 2.6	15 40.5 1.9	37 2.3
27.0 TO 29.9 UNI (11)	19 54.3 2.2	16 45.7 2.1	35 2.2
30.0 TO 35.9 UNI (12)	37 58.7 4.4	26 41.3 3.4	63 3.9
36.0 TO 45.9 UNI (13)	62 58.5 7.3	44 41.5 5.7	106 6.5
46.0 TO 55.9 UNI (14)	68 52.3 8.0	62 47.7 8.0	130 8.0

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56.0 TO 60.9	15 UNI	67 50.0 7.9	67 50.0 8.7	134 8.3
61.0 TO 70.9	16 UNI	126 51.9 14.9	117 48.1 15.1	243 15.0
71.0 TO 80.9	17 UNI	80 55.6 9.4	64 44.4 8.3	144 8.9
81.0 TO 90.9	18 UNI	44 55.0 5.2	36 45.0 4.7	80 4.9
91.0 OR +	19 UNI	67 60.9 7.9	43 39.1 5.6	110 6.8
	Column Total	847 52.3	774 47.7	1621 100.0

TABLE 40
AVERAGE SEMESTERS REGISTERED AT CSUS, BY COHORT

Variable	Value	Label	Mean	Std Dev	Cases
For Entire Population			5.5558	3.1777	1621
COHORTR	1	NO REMED	5.6364	3.1794	847
COHORTR	2	SOME REM	5.4677	3.1755	774

TABLE 41
AVERAGE ACADEMIC YEAR EQUIVALENTS AT CSUS, BY COHORT

Variable	Value	Label	Mean	Std Dev	Cases
For Entire Population			2.7779	1.5888	1621
COHORTR	1	NO REMED	2.8182	1.5897	847
COHORTR	2	SOME REM	2.7339	1.5877	774

TABLE 42
AVERAGE ACADEMIC YEARA ELAPSED AT CSUS, BY COHORT

Variable	Value	Label	Mean	Std Dev	Cases
For Entire Population			3.5361	1.8835	1621
COHORTR	1	NO REMED	3.5183	1.8570	847
COHORTR	2	SOME REM	3.5556	1.9131	774

TABLE 43
AVERAGE CSUS GPA, BY GENDER/ETHNICITY

Variable	Value	Label	Mean	Std Dev	Cases
For Entire Population			2.5183	1.0320	1621
GENDERN	1	MALE	2.4184	.9756	802
RETHNIC	1	American Indian	2.3970	.7626	10
RETHNIC	2	African-American	1.9234	.9437	50
RETHNIC	3	Mexican-American	2.0721	1.0404	53
RETHNIC	6	Asian/Pac.Island	2.5249	.8300	129
RETHNIC	8	White	2.5165	.9847	488
RETHNIC	9	Unknown/Other	2.1640	.9741	72
GENDERN	2	FEMALE	2.6161	1.0761	819
RETHNIC	1	American Indian	2.4362	1.2945	13
RETHNIC	2	African-American	2.1477	.8841	61
RETHNIC	3	Mexican-American	2.4263	1.1894	64
RETHNIC	6	Asian/Pac.Island	2.7150	.9206	90
RETHNIC	8	White	2.6810	1.0798	546
RETHNIC	9	Unknown/Other	2.5880	1.1763	45

TABLE 44
AVERAGE CSUS GPA, BY GENDER/AGE GROUP

Variable	Value	Label	Mean	Std Dev	Cases
For Entire Population			2.5183	1.0320	1621
GENDERN	1	MALE	2.4184	.9756	802
AGEGRP2	1	18 TO 20	2.5774	.8095	286
AGEGRP2	2	21 TO 24	2.3214	.9310	317
AGEGRP2	3	25 TO 29	2.2893	1.2257	132
AGEGRP2	4	30 TO 39	2.5279	1.1798	48
AGEGRP2	5	40 & OVR	2.2621	1.2043	19
GENDERN	2	FEMALE	2.6161	1.0761	819
AGEGRP2	1	18 TO 20	2.5819	1.0177	306
AGEGRP2	2	21 TO 24	2.5131	1.0590	231
AGEGRP2	3	25 TO 29	2.6424	1.2151	113
AGEGRP2	4	30 TO 39	2.8232	1.0948	112
AGEGRP2	5	40 & OVR	2.7579	1.0867	57

TABLE 45
AVERAGE CSUS GPA, BY COHORT/GENDER/ETHNICITY/AGE GROUP

Variable	Value	Label	Mean	Std Dev	Cases
For Entire Population			**2.5183**	**1.0320**	**1621**
COHORTR	1	NO REMED	2.5921	1.0042	847
GENDERN	1	MALE	2.4662	.9603	419
RETHNIC	1	American Indian	2.3125	.9978	4
AGEGRP2	2	21 TO 24	2.7850	1.3647	2
AGEGRP2	3	25 TO 29	2.1800	.0000	1
AGEGRP2	4	30 TO 39	1.5000	.0000	1
RETHNIC	2	African-American	1.9724	.8036	25
AGEGRP2	1	18 TO 20	2.3300	.3716	5
AGEGRP2	2	21 TO 24	1.8300	.8525	9
AGEGRP2	3	25 TO 29	1.8200	.9905	8
AGEGRP2	4	30 TO 39	2.3150	1.0112	2
AGEGRP2	5	40 & OVR	2.0000	.0000	1
RETHNIC	3	Mexican-American	2.2636	1.0096	22
AGEGRP2	1	18 TO 20	1.9662	1.1773	8
AGEGRP2	2	21 TO 24	2.3090	.9369	10
AGEGRP2	3	25 TO 29	2.8500	1.0037	3
AGEGRP2	4	30 TO 39	2.4300	.0000	1
RETHNIC	6	Asian/Pac.Island	2.5648	.8425	87
AGEGRP2	1	18 TO 20	2.6249	.8706	43
AGEGRP2	2	21 TO 24	2.3964	.8201	36
AGEGRP2	3	25 TO 29	2.9840	.8501	5
AGEGRP2	4	30 TO 39	3.2400	.0000	1
AGEGRP2	5	40 & OVR	2.9200	.1131	2
RETHNIC	8	White	2.5764	.9888	237
AGEGRP2	1	18 TO 20	2.6973	.7800	90
AGEGRP2	2	21 TO 24	2.3707	.9546	85
AGEGRP2	3	25 TO 29	2.5300	1.2891	41
AGEGRP2	4	30 TO 39	3.0906	.9658	17
AGEGRP2	5	40 & OVR	2.5175	1.7477	4
RETHNIC	9	Unknown/Other	2.0736	.9176	44
AGEGRP2	1	18 TO 20	2.3738	.5908	13
AGEGRP2	2	21 TO 24	2.1755	.8246	20
AGEGRP2	3	25 TO 29	1.5171	1.4492	7
AGEGRP2	4	30 TO 39	1.1967	.3855	3
AGEGRP2	5	40 & OVR	2.6600	.0000	1
GENDERN	2	FEMALE	2.7154	1.0317	428
RETHNIC	1	American Indian	2.8200	.8827	6
AGEGRP2	2	21 TO 24	2.3400	1.4142	2
AGEGRP2	3	25 TO 29	2.3800	.0000	1
AGEGRP2	4	30 TO 39	3.1800	.7212	2
AGEGRP2	5	40 & OVR	3.5000	.0000	1
RETHNIC	2	African-American	2.0714	.8436	21
AGEGRP2	1	18 TO 20	2.2033	.2476	6
AGEGRP2	2	21 TO 24	1.8400	1.0131	5
AGEGRP2	3	25 TO 29	2.4600	.0000	1
AGEGRP2	4	30 TO 39	1.9287	1.0612	8
AGEGRP2	5	40 & OVR	3.1900	.0000	1

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Variable	Value	Label	Mean	Std Dev	Cases
RETHNIC	3	Mexican-American	2.1996	1.0911	23
AGEGRP2	1	18 TO 20	1.8144	1.2516	9
AGEGRP2	2	21 TO 24	2.3333	.9697	12
AGEGRP2	3	25 TO 29	3.2600	.0000	1
AGEGRP2	4	30 TO 39	3.0000	.0000	1
RETHNIC	6	Asian/Pac.Island	2.8043	.8467	53
AGEGRP2	1	18 TO 20	2.9657	.7088	35
AGEGRP2	2	21 TO 24	2.6730	.6575	10
AGEGRP2	3	25 TO 29	2.2286	1.4611	7
AGEGRP2	4	30 TO 39	2.5000	.0000	1
RETHNIC	8	White	2.7429	1.0780	299
AGEGRP2	1	18 TO 20	2.6806	1.0073	106
AGEGRP2	2	21 TO 24	2.7111	1.0055	87
AGEGRP2	3	25 TO 29	2.4535	1.5242	43
AGEGRP2	4	30 TO 39	3.1371	.9349	41
AGEGRP2	5	40 & OVR	3.0000	.6308	22
RETHNIC	9	Unknown/Other	3.1704	.4760	26
AGEGRP2	1	18 TO 20	2.9545	.3874	11
AGEGRP2	2	21 TO 24	3.3050	.3840	6
AGEGRP2	3	25 TO 29	3.3625	.6928	4
AGEGRP2	4	30 TO 39	3.3125	.6012	4
AGEGRP2	5	40 & OVR	3.4000	.0000	1
COHORTR	2	SOME REM	2.4374	1.0564	774
GENDERN	1	MALE	2.3660	.9906	383
RETHNIC	1	American Indian	2.4533	.6633	6
AGEGRP2	1	18 TO 20	1.7900	.0000	1
AGEGRP2	2	21 TO 24	2.9200	.2272	3
AGEGRP2	3	25 TO 29	2.0850	.8556	2
RETHNIC	2	African-American	1.8744	1.0805	25
AGEGRP2	1	18 TO 20	2.0700	.2897	4
AGEGRP2	2	21 TO 24	1.3989	1.0989	9
AGEGRP2	3	25 TO 29	1.8200	1.5800	3
AGEGRP2	4	30 TO 39	2.1550	1.5607	4
AGEGRP2	5	40 & OVR	2.3820	.7083	5
RETHNIC	3	Mexican-American	1.9361	1.0567	31
AGEGRP2	1	18 TO 20	2.2300	1.0233	8
AGEGRP2	2	21 TO 24	1.9667	.9803	12
AGEGRP2	3	25 TO 29	1.6067	1.3134	9
AGEGRP2	4	30 TO 39	2.0600	.2970	2
RETHNIC	6	Asian/Pac.Island	2.4421	.8073	42
AGEGRP2	1	18 TO 20	2.7550	.3831	10
AGEGRP2	2	21 TO 24	2.4550	.8457	22
AGEGRP2	3	25 TO 29	2.0250	1.0086	8
AGEGRP2	4	30 TO 39	3.0700	.0000	1
AGEGRP2	5	40 & OVR	1.7400	.0000	1
RETHNIC	8	White	2.4599	.9795	251
AGEGRP2	1	18 TO 20	2.6003	.8354	97
AGEGRP2	2	21 TO 24	2.3230	.9496	97
AGEGRP2	3	25 TO 29	2.4961	1.1339	38
AGEGRP2	4	30 TO 39	2.4180	1.3762	15
AGEGRP2	5	40 & OVR	2.1900	1.6419	4

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Variable	Value	Label	Mean	Std Dev	Cases
RETHNIC	9	Unknown/Other	2.3061	1.0582	28
AGEGRP2	1	18 TO 20	2.2257	.4750	7
AGEGRP2	2	21 TO 24	2.9308	.6626	12
AGEGRP2	3	25 TO 29	1.7843	1.3629	7
AGEGRP2	4	30 TO 39	1.3300	.0000	1
AGEGRP2	5	40 & OVR	.0000	.0000	1
GENDERN	2	FEMALE	2.5074	1.1139	391
RETHNIC	1	American Indian	2.1071	1.5583	7
AGEGRP2	1	18 TO 20	.0000	.0000	1
AGEGRP2	2	21 TO 24	2.9567	.9445	3
AGEGRP2	4	30 TO 39	2.9400	.5940	2
AGEGRP2	5	40 & OVR	.0000	.0000	1
RETHNIC	2	African-American	2.1878	.9126	40
AGEGRP2	1	18 TO 20	1.8109	1.1030	11
AGEGRP2	2	21 TO 24	2.1300	.8728	11
AGEGRP2	3	25 TO 29	2.8040	.7600	10
AGEGRP2	4	30 TO 39	2.0320	.4036	5
AGEGRP2	5	40 & OVR	1.9867	.7778	3
RETHNIC	3	Mexican-American	2.5534	1.2358	41
AGEGRP2	1	18 TO 20	2.7031	1.0124	16
AGEGRP2	2	21 TO 24	2.2980	1.2556	10
AGEGRP2	3	25 TO 29	2.7017	1.4035	6
AGEGRP2	4	30 TO 39	1.8020	1.7781	5
AGEGRP2	5	40 & OVR	3.3100	.9619	4
RETHNIC	6	Asian/Pac.Island	2.5870	1.0154	37
AGEGRP2	1	18 TO 20	2.3571	1.2320	14
AGEGRP2	2	21 TO 24	2.6979	.6756	14
AGEGRP2	3	25 TO 29	1.7350	2.4537	2
AGEGRP2	4	30 TO 39	2.9640	.5588	5
AGEGRP2	5	40 & OVR	3.3300	.0707	2
RETHNIC	8	White	2.6060	1.0794	247
AGEGRP2	1	18 TO 20	2.5137	1.0522	93
AGEGRP2	2	21 TO 24	2.4714	1.1181	63
AGEGRP2	3	25 TO 29	2.9003	.7233	35
AGEGRP2	4	30 TO 39	2.7681	1.2136	36
AGEGRP2	5	40 & OVR	2.6530	1.2963	20
RETHNIC	9	Unknown/Other	1.7911	1.3810	19
AGEGRP2	1	18 TO 20	2.5350	.3361	4
AGEGRP2	2	21 TO 24	.9337	1.1664	8
AGEGRP2	3	25 TO 29	2.2367	1.5221	3
AGEGRP2	4	30 TO 39	3.7600	.1414	2
AGEGRP2	5	40 & OVR	1.0950	1.5486	2

TABLE 46
AVERAGE CSUS GPA, BY COHORT/AGE GROUP

Variable	Value	Label	Mean	Std Dev	Cases
For Entire Population			2.5183	1.0320	1621
COHORTR	1	NO REMED	2.5921	1.0042	847
AGEGRP2	1	18 TO 20	2.6499	.8874	326
AGEGRP2	2	21 TO 24	2.4674	.9500	284
AGEGRP2	3	25 TO 29	2.4361	1.3438	122
AGEGRP2	4	30 TO 39	2.8913	1.0174	82
AGEGRP2	5	40 & OVR	2.9291	.7881	33
COHORTR	2	SOME REM	2.4374	1.0564	774
AGEGRP2	1	18 TO 20	2.4938	.9579	266
AGEGRP2	2	21 TO 24	2.3321	1.0296	264
AGEGRP2	3	25 TO 29	2.4680	1.1132	123
AGEGRP2	4	30 TO 39	2.5699	1.2136	78
AGEGRP2	5	40 & OVR	2.4074	1.2982	43

TABLE 47
SEMESTER/YEAR CSUS DEGREE WAS GRANTED

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
SPRING 84	842	5	.3	.3	.3
SUMMER 84	843	1	.1	.1	.4
FALL 84	844	13	.8	.8	1.2
SPRING 85	852	91	5.6	5.6	6.8
SUMMER 85	853	22	1.4	1.4	8.1
FALL 85	854	118	7.3	7.3	15.4
SPRING 86	862	191	11.8	11.8	27.2
SUMMER 86	863	33	2.0	2.0	29.2
FALL 86	864	91	5.6	5.6	34.9
SPRING 87	872	80	4.9	4.9	39.8
SUMMER 87	873	14	.9	.9	40.7
FALL 87	874	48	3.0	3.0	43.6
SPRING 88	882	55	3.4	3.4	47.0
SUMMER 88	883	3	.2	.2	47.2
FALL 88	884	17	1.0	1.0	48.2
SPRING 89	892	36	2.2	2.2	50.5
SUMMER 89	893	1	.1	.1	50.5
FALL 89	894	12	.7	.7	51.3
SPRING 90	902	14	.9	.9	52.1
NO DEGREE		776	47.9	47.9	100.0
	TOTAL	1621	100.0	100.0	

TABLE 48
DEGREE MAJOR AT CSUS

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
BUSINESS FIELDS	4	295	34.9	34.9	34.9
SOCIAL SCIENCES	3	166	19.6	19.6	54.5
ENGINEERING	9	80	9.5	9.5	64.0
EDUCATION/CREDENTIAL	10	76	9.0	9.0	73.0
COMMUNICATION STUDIES	11	65	7.7	7.7	80.7
MATH/SCIENCE	2	40	4.7	4.7	85.4
COMPUTER SCIENCE	8	27	3.2	3.2	88.6
PHYSICAL ED./HEALTH	12	24	2.8	2.8	91.4
FINE ARTS/LANGUAGES	13	23	2.7	2.7	94.1
ENGLISH/PHILOSOPHY	14	19	2.2	2.2	96.3
ALLIED HEALTH FIELDS	5	18	2.1	2.1	98.4
HOME ECONOMICS FIELDS	6	12	1.4	1.4	99.8
	TOTAL	845	100.0	100.0	

TABLE 49
CSUS DEGREE STATUS BY GENDER

HASDEG—> / GENDER	Count / Row Pct / Col Pct	HAS DEGREE 1	NO DEGREE 2	Row Total
MALE	1	410 51.1 48.5	392 48.9 50.5	802 49.5
FEMALE	2	435 53.1 51.5	384 46.9 49.5	819 50.5
	Column Total	845 52.1	776 47.9	1621 100.0

TABLE 50
CSUS DEGREE STATUS BY ETHNICITY

HASDEG--> / ETHNICITY	Count / Row Pct / Col Pct	HAS DEGREE 1	NO DEGREE 2	Row Total
American Indian	1	9	14	23
		39.1	60.9	1.4
		1.1	1.8	
African-American	2	33	78	111
		29.7	70.3	6.8
		3.9	10.1	
Mexican-American	3	48	69	117
		41.0	59.0	7.2
		5.7	8.9	
Asian/Pac.Island	6	134	85	219
		61.2	38.8	13.5
		15.9	11.0	
White	8	569	465	1034
		55.0	45.0	63.8
		67.3	59.9	
Unknown/Other	9	52	65	117
		44.4	55.6	7.2
		6.2	8.4	
	Column Total	845	776	1621
		52.1	47.9	100.0

TABLE 51
CSUS DEGREE STATUS BY AGE GROUPS

HASDEG--> / AGE GROUP	Count / Row Pct / Col Pct	HAS DEGREE 1	NO DEGREE 2	Row Total
18 TO 20	1	343	249	592
		57.9	42.1	36.5
		40.6	32.1	
21 TO 24	2	269	279	548
		49.1	50.9	33.8
		31.8	36.0	
25 TO 29	3	116	129	245
		47.3	52.7	15.1
		13.7	16.6	
30 TO 39	4	85	75	160
		53.1	46.9	9.9
		10.1	9.7	
40 & OVR	5	32	44	76
		42.1	57.9	4.7
		3.8	5.7	
	Column Total	845	776	1621
		52.1	47.9	100.0

TABLE 52
CSUS DEGREE STATUS BY COHORTS
[Will be revised when data are available on Last Class Standing.]

HASDEG-> / COHORT	Count / Row Pct / Col Pct	HAS DEGREE 1	NO DEGREE 2	Row Total
NO REMED	1	455 53.7 53.8	392 46.3 50.5	847 52.3
SOME REM	2	390 50.4 46.2	384 49.6 49.5	774 47.7
	Column Total	845 52.1	776 47.9	1621 100.0

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